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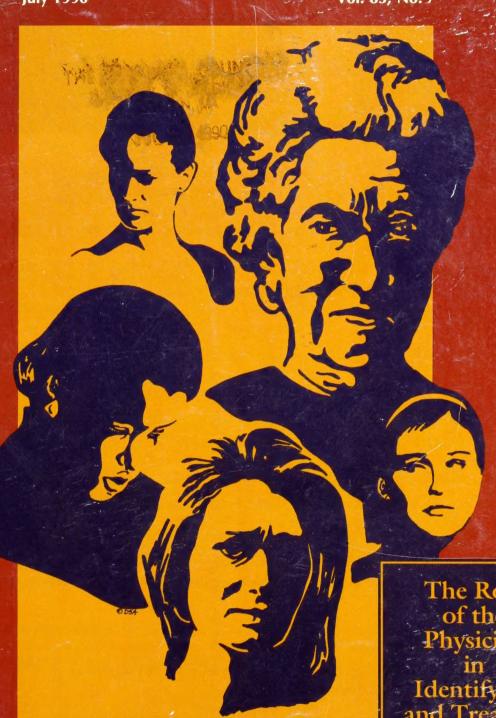


# INDIANA MEDICINE

The Journal of the Indiana State Medical Association

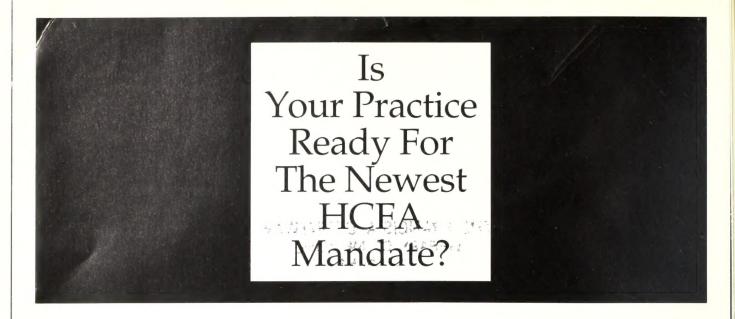
July 1990

Vol. 83, No. 7



F. A. COUNTWAY L.
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10 SHATTUCK STREE

The Role
of the
Physician
in
Identifying
and Treating
Abused
Women



September 1, 1990 - All Medicare providers\* must create and file claim forms for every Medicare patient.

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# INDIANA MEDICINE

The Journal of the Indiana State Medical Association

July 1990

THE FRANCIS A. COUNTWAY Vol. 83, No. 7

LIBRARY OF MEDICINE
BOSTON, MA

## scientific contributions

JUL 26 1990

#### CME

The management and treatment	
<mark>of an abnormal Pap sme</mark> ar	468

#### HAND CLINIC

Tennis elbow	76
Risk factors for late-onset necrotizing enterocolitis	78
The signal averaged electrocardiogram: A practical primer	32
Processing surgically removed lymph nodes	88

\_features\_\_\_\_

The	role of th	ne physic	cian i	n id	entifyi	ng		
and	1 treating	abused	wom	en			 	

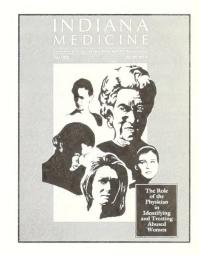
Physicians must recognize the signs and symptoms of abuse, either positive, probable or suggestive, to help identify an abused woman.

#### 

How accessible are your medical records?	498
The release of medical information can be a complicated issue	
Indiana Code 16-4-8 can answer your questions	

Snakeroot Extract	50	1
Snakeroot Extract	50	)

Digest of health and medical laws	
Highlights of the 1990 Indiana Conoral Assembly	



Cover story on page 492. Cover art by Diane Alfonso, Indianapolis.

## departments

stethoscope	.459
from the museum	. 460
what's new	.462
cme calendar	.464
cme answers	.473
cme quiz	.474
drug names	.491
isma leadership	. 503
editorial	.539
news briefs	.540
obituaries	.541
people	.542
classifieds	544

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Advertising rates and data available upon request. INDIANA MEDICINE reserves the right to accept or reject advertising copy.

## ■ stethoscope

## Noted political analyst to speak at IMPAC seminar

The ISMA and the Indiana Medical Political Action Committee (IM-PAC) will sponsor a political education seminar from 9:30 a.m. to noon Wednesday, Sept. 26, at the Airport Holiday Inn in Indianapolis. Charles E. Cook Jr. will conduct the seminar. He is editor of *The Cook Political Report* and a vice president in the strategic and economic analysis division of Hill and Knowlton Public Affairs Worldwide Co. There is no cost to participants, but space is limited. To register or obtain more information, call Susan Grant at the ISMA, (317) 925-7545 or 1-800-969-7545.

## Medical Licensing Board appoints members

The Indiana Medical Licensing Board has re-appointed one member and appointed two new members. Ronald E. Elberger, an Indianapolis attorney and the board's citizen representative, was re-appointed. New members are David E. Ross, M.D., a Gary family practitioner, and Ralph W. Stewart, M.D., a Vincennes ophthalmologist and a former ISMA trustee.

## Two events scheduled for resident physicians

The ISMA Resident Medical Society is planning two events for its members later this summer. The annual Practice Opportunity Fair is set for 7 p.m. to 9:30 p.m. Wednesday, Aug. 22, at the Hyatt Regency Hotel in downtown Indianapolis. Representatives from Indiana hospitals, clinics and consulting firms will be available to answer questions and provide residents with information about practice opportunities. In addition, brief educational seminars about contracts, employment agreements, insurance and financing a practice will be presented.

The ISMA and the Indiana Academy of Family Physicians will cosponsor a "Starting Your Practice" workshop Thursday, Aug. 30, through Saturday, Sept. 1, at the Seasons Lodge and Conference Center in Nashville, Ind. A representative from the practice management department of the American Medical Association will conduct the course. Residents will receive information about the business aspects of running a practice, including information on accounting procedures and business law. For information, call Jackie Schilling at the Indiana Academy of Family Physicians, (317) 856-3757.

#### Indiana congressmen cosponsor 'anti-hassle' legislation

Three Indiana congressmen have become co-sponsors of H.R. 4475, the American Medical Association-sponsored Medicare reform bill. They are Republicans John Hiler and Dan Burton and Democrat Andy Jacobs. The legislation, commonly referred to as the "antihassle" bill, contains five major reforms: permitting billing for covering physicians; prohibiting carrier charges to physicians for necessary data they must provide; making release of carrier screens mandatory; allowing medical societies to represent physicians in appeals of inappropriate denials; and establishing a Health Care Financing Administration physician advisory group to review Medicare regulations before implementation.

## from the museum

N ineteenth- and early 20th-century medical trade catalogs provided consumers with concise descriptions of various medical, dental and optical instruments and appliances, as well as pharmaceutical products. However, this material had a short life. Many physicians probably disposed of trade catalogs the minute an updated version reached their desks. Nineteenth-century trade catalogs are extremely scarce, yet important to the museum curator and researcher.

Both manufacturers and distributors of medical, surgical and pharmaceutical equipment and products published trade catalogs. Before 1850, trade catalogs were not illustrated. During the second half of the 19th century, however, illustrations accompanied the instrument descriptions. Some manufacturers not only illustrated the instruments but showed the instruments in use.

Until World War I, the illustrations consisted of line drawings. After that period, black and white photographs of the instruments were common. If the instrument were new, the manufacturer or distributor might include

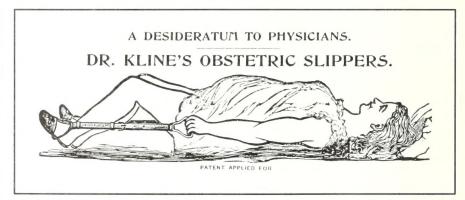
a detailed description or a reference from a medical or scientific journal. The catalog often would contain information about the inventor and any technological improvements to the instrument.

Trade catalogs are particularly useful to the curator and historian because they often tell the materials from which an instrument was made, how it was used and its technological significance. Moreover, they reveal the types of information physicians relied on to purchase instruments and the marketing techniques that sold instruments. These descriptions of the latest medical instruments were often the only information

many rural doctors received about the latest medical technology.

The Indiana Medical History Museum has approximately 20 trade catalogs in its collection, including catalogs from local distributors and manufacturers such as the William H. Armstrong Co., the William D. Allison Co., the Zimmer Manufacturing Co. and the Frank S. Betz Co.

To help with cataloging efforts, the museum needs more of these publications. If anyone would like to donate trade catalogs, contact the Indiana Medical History Museum, 3000 W. Washington St., Indianapolis, IN 46222, (317) 635-7329. □



This illustration appeared in the William H. Armstrong & Co. catalog, published in Indianapolis.



Because safety cannot be taken for granted in H<sub>2</sub>-antagonist therapy

### Minimal potential for drug interactions

Unlike cimetidine and ranitidine,1 Axid does not inhibit the cytochrome P-450 metabolizing enzyme system.2

### Swift and effective H<sub>2</sub>-antagonist therapy

- Most patients experience pain relief with the first dose3
- Heals duodenal ulcer rapidly and effectively 4.5
- Dosage for adults with active duodenal ulcer is 300 mg once nightly (150 mg b.i.d. is also available)

- USP DI Update, September/October 1988, p 120. Br J Clin Pharmacol 1985, 20 710-713 Data on file, Lilly Research Laboratories

- <u>Scand J Gastroenterol</u> 1987,22(suppl 136) 61-70. <u>Arm J Gastroenterol</u> 1989,84 769-774

#### AXID "

nizatidine capsules

Brief Summary. Consult the package literature for complete information.

Indications and Usage: 1. Active duodenal ulcer—for up to eight weeks of treatment. Most patients heal within four weeks
2. Maintenance therapy—for healed duodenal ulcer patients at a reduced dosage of 150 mg his. The consequences of therapy with Axid for longer than one year are not known

 $\begin{tabular}{ll} \textbf{Contraindication:} & Known & hypersensitivity to the drug. Use with caution in patients with hypersensitivity to other $H_2$-receptor antagonists. \end{tabular}$ Precautions: General-1. Symptomatic response to nizatidine therapy

does not preclude the presence of gastric malignancy.

2. Dosage should be reduced in patients with moderate to severe renal insufficiency.

3. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal probabilities.

Laboratory Tests - False-positive tests for urobilingen with Multistix®

Laboratory Tests –False-positive tests for urobilinogen with Multistix\* may occur during therapy.

Drug Interactions – No interactions have been observed with theophyline, chloridazepoxide, lorazepam, indocame, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450 enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of asprinn daily, increased serum salicylate levels were seen when nuzatidine, 150 mg bi.d, was administered concurrently

Carcinogenesis, Mutagenesis, Impairment of Fertility—A two-year oral carcinogeneity study in rats with doses as high as 500 mg/ksi/day.

Carcinogenesis, Mulagenesis, impairment of Fertility—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placeb. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum folierated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given

Axid® (nizatidine, Lilly)

an excessive and somewhat henatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid Axid was not mutagenic in a battery of tests performed to evaluate its

potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, pennatal and postnatal fertility study in rats, doses

In a two-generation, pennatal and postnatal fertility study in rats, doses of inzatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny. Pregnancy - Teratogenic Effects - Pregnancy Category C - Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Betted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizabdine at 20 mg/kg produced pro venous administration to pregnant New Zealand White rabbits, nizabdine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina brilda, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether inizabdine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizabdine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers-Studies in lactating women have shown that Nursing Mothers—Studies in Tactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother Pediatric Use—Salety and effectiveness in children have not been established Use in Elderly Patients—Healing rates in elderly patients were similar to these uncompression contens as when the notes of divisors or contents and

to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function

Adverse Reactions: Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizabdine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticana (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizabdine. It was not possible to determine whether a variety of less common events was due to the drug.

Axid\* (nizatidine, Lilly)

Hepatic – Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 III/L) in SG0T or SGPT and, in a single instance, SGPT was >2,000 III/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid. Cardiovascular – In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

CNS—Rare cases of reversible mental confusion have been reported. Endocnne—Clinical pharmacology studies and controlled clinical thals showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

reported rarely

reported rarely. 
Hematologic—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H<sub>2</sub>-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported Integumental—Sweating and urticaria were reported significantly more frequently in nizatidine—than in placebo-treated patients. Rash and exfoliative dermatitis were also reported. 
Hypersensitivity—As with other H<sub>2</sub>-receptor antagonists, rare cases of anaphytaxis following nizatidine administration have been reported. 
Because cross-sensitivity among this class has been observed, H<sub>2</sub>-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eq. bronchospasm, laryngeal edema, rash, and essinophilia) have been (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been

Other-Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizabdine have been

Overdosage: Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%

PV 2098 AMP Additional information available to the profession on request



Eli Lilly and Company Indianapolis, Indiana 46285

NZ-2924-B-049310

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Axid® (nızatıdıne, Lilly)

## what's new

Hewlett-Packard Co. has developed peripheral vascular-imaging capabilities for the HP SONOS 100 imaging system. The enhancements are standard on all new HP SONOS 100s and are available as an upgrade to existing HP SONOS 100 imaging systems.

Andries Tek Inc. has available its electronic stethoscope, which offers improved fidelity and ambient-noise rejection. It is a solid-state instrument that clarifies and amplifies sounds that ordinary scopes muddle. Because there are no air reverberations that are inherent in rubber hose scopes, distinct heart sounds are heard.

Midmark Corp. has introduced the Midmark 409 Pediatric Examination Table. The new table contains a built-in scale and a measuring device. The scale locks and unlocks easily with a lever located in front of the physician and out of the child's reach. Once the scale is locked, the unit becomes a sturdy treatment table. The table is 38 1/4" high and allows physicians to examine children without leaning and stooping.

Stackhouse Inc. has introduced an improved 0.5 micron disposable filter canister for laser smoke evacuators. The unit features a clear end bell on the inlet flow portion of the canister. If a count reveals a missing surgical sponge, the see-through design enables the operator to see if any item has been inadvertently drawn into the system. The filters are designed to last up to 60 minutes, depending on the surgery.

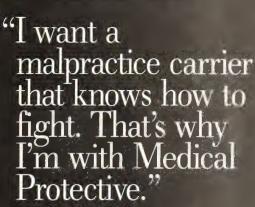
NeedlePoint Guard Inc. has introduced safety syringes that feature a protective shield to help eliminate needlesticks. The guard works to protect all health care workers against accidental needlestick injuries by shielding the used needle. The rigid shield attaches to the syringe and protects handlers while discarding.

Ross Laboratories has announced two new products. ALTERNA® is a low-protein milk substitute made for people on protein-and phosphorus-restricted diets. It is complemented by REPLENA®, a high-calorie drink for people who have difficulty consuming enough calories to meet their daily needs. ALTERNA® is available in packets and powder

forms and is mixed easily with water. REPLENA® is packaged in ready-to-use cans.

Merck Sharp & Dohme (MSD) has announced a new program designed to give the nation's poor easier access to important prescription medicines. Under the plan, MSD will offer its best or lowest price for all of its single-source products to those states that do not restrict physicians' use of its products for Medicaid patients. The program seeks to preserve the ability of doctors to use the medicines they choose for their patients and to ensure that Medicaid patients can receive the same cost-effective medicines available to the general public.

SleepTrace Corp. has available an advanced, portable 18-channel computerized diagnostic instrument for use in sleep disorders medicine. SleepTrace®, which includes a built-in pulse oximeter, may be used by physicians, hospitals, outpatients' programs, home health care companies, nursing homes and medical clinics. Studies can be done in a patient's home or in a clinical setting.



At Medical Protective, fighting for our doctors is our number one priority. We know we're not just insuring your finances. We're protecting your professional reputation, an asset no amount of insurance can replace.

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Vernon E. Hoover, H. Jere Frey, Michael W. Kinzer, 6100 North Keystone Avenue, Suite 237, P.O. Box 20576,

Indianapolis, IN 46220 (317) 255-6525

## cme calendar

Methodist Hospital

Methodist Hospital of Indiana will sponsor the following CME courses:

- Aug. 3-5 Immunological Obstetrics Symposium:
  Oncology, Methodist
  Hospital of Indiana,
  Petticrew Auditorium, Indianapolis.
- Aug. 30- Eighth World Congress on Endourology & E.S.W.L.,
  Hyatt Regency,
  Washington, D.C.
- Sept. 15 Management of Silent Ischemia, Hyatt Regency, Indianapolis.
- Oct. 5-6 Advanced Cardiac Life Support, Methodist Hospital of Indiana, Wile Hall, Indianapolis.
- Oct. 18-19 11th Annual Harold C. Ochsner Radiology Lectureship, Methodist Hospital of Indiana, Indianapolis.

For additional program information, call Dixie Estridge, (317) 929-3733.

St. Vincent Hospital

St. Vincent Hospital and Health Care Center in Indianapolis will sponsor these CME courses:

- **Sept. 12-14** Cardiopulmonary Rehabilitation Symposium, Hilton-onthe-Circle, Indianapolis.
- Oct. 5 Richter Day, Radisson Hotel, Indianapolis.

For information, call Beth Hartauer, assistant coordinator, Medical Education, (317) 871-3460. Indiana University

The Indiana University School of Medicine will sponsor the following courses:

- July 9-18 75th Annual Anatomy and Histopathology of the Head and Neck and Temporal Bone, I.U.
  Medical Center, Indianapolis.
- Aug. 10-11 Critical Care and the Surgical Patient, University Place Executive Conference Center and Hotel, Indianapolis.
- Sept. 13 Medical Educational Resources Program Anxiety Disorders Teleconference, University Place Executive Conference Center and Hotel, Indianapolis.
- Sept. 14 Sleep Disorders Program, University
  Place Executive Conference Center and
  Hotel, Indianapolis.
- Sept. 21 Tri-State Craniofacial Conference, University Place Executive Conference Center and Hotel, Indianapolis.
- Sept. 20-22– 12th Annual Conference on Interdisciplinary Health Care Team, University Place Executive Conference Center and Hotel, Indianapolis.
- Sept. 24-26– Echocardiography in Coronary Artery Disease, University Place Executive Conference Center and Hotel, Indianapolis.

For information, call Melody Dian, (317) 274-8353.

Ohio State University

The Ohio State University Hospitals Department of Internal Medicine will sponsor "Comprehensive Review in Internal Medicine" Aug. 18 through 25 at the Hyatt on Capitol Square in Columbus, Ohio.

The conference is designed to prepare people studying for their internal medicine boards and to provide scientific updates to practicing internists and other physicians.

The conference has been approved for 77.5 CME Category I credit hours. For additional information, call Ohio State's internal medicine department, 1-800-752-8606.

University of Michigan

The University of Michigan Medical School will sponsor the following CME courses:

- Aug. 3-4 Diabetes and Endocrinology Update,
  Grand Traverse Resort, Grand Traverse
  Village, Mich.
- Aug. 19-22- Internal Medicine Update, Grand Hotel, Mackinac Island, Mich.
- Aug. 24-27- Cardiology Update, Grand Hotel, Mackinac Island, Mich.

For additional information about the Aug. 3-4 conference, call Gayle Fox, (313) 763-1400. For more information about the Aug. 19-22 conference, call Julie Jacobs, 1-800-962-3555. For additional information about the Aug. 24-27 conference, call Betty Phillips, (313) 763-1400. □

## The new option for initial antihypertensive therapy



## **New Rx information**

"Initiate therapy with 180 mg of sustainedrelease verapamil HCl, Calan SR...."

> From Dosage and Administration section of complete prescribing information for Calan SR\*

# NEW 180 mg CALAN SR

- Instead of a diuretic or an ACE inhibitor.
- For treatment of mild to moderate hypertension.

## Highly effective...

- Effective regardless of age<sup>1-6†</sup> or race.<sup>2</sup>
- In six clinical studies, allowing for dosage titration up to 480 mg per day, more than 80% of 4,000 adult patients on Calan SR as a single-agent antihypertensive achieved goal blood pressure.<sup>1-6</sup>

#### Well tolerated...

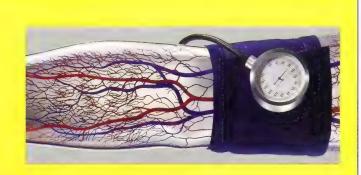
- Total side-effect incidence with Calan SR 180 mg was not significantly different from that of placebo.<sup>7</sup>
- Constipation, the most commonly reported side effect of Calan SR, is easily managed in most patients.

\*Lower initial doses of 120 mg a day may be warranted in patients who have an increased response to verapamil (eg. the elderly or those of small stature)

†For adult hypertensives only

Please see references and a brief summary of prescribing information on adjoining page





## **NEW CALAN SR 180 mg**



## **New Rx information**

"Initiate therapy with 180 mg of sustainedrelease verapamil HCl, Calan SR...."

> -From Dosage and Administration section of complete prescribing information for Calan SR.

- Instead of a diuretic or an ACE inhibitor
- For treatment of mild to moderate hypertension
- Highly effective
- Well tolerated



In mild to moderate hypertension

\*Lower initial doses of 120 mg a day may be warranted in patients who have an increased response

#### **BRIEF SUMMARY**

Contraindications: Severe LV dysfunction (see Warnings), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rddegree AV block (if no pacemaker is present), atrial flutter/fibrillation with an accessory bypass tract (eg, WPW or LGL syndromes), hypersensitivity to verapamil

Warnings: Verapamil should be avoided in patients with severe LV dysfunction (eg, ejection fraction < 30%) or moderate to severe symptoms of cardiac failure and in patients with any degree of ventricular dysfunction if they are receiving a beta-blocker Control milder heart failure with optimum digitalization and/or diuretics before Calan SR is used. Verapamil may occasionally produce hypotension. Elevations of liver enzymes have been reported. Several cases have been demonstrated to be produced by verapamil. Periodic monitoring of liver function in patients on verapamil is prudent Some patients with paroxysmal and/or chronic atrial flutter/fibrillation and an accessory AV pathway (eg, WPW or LGL syndromes) have developed an increased antegrade conduction across the accessory pathway bypassing the AV node, producing a very rapid ventricular response or ventricular fibrillation after receiving I V verapamil (or digitalis). Because of this risk, oral verapamil is contraindicated in such patients. AV block may occur (2nd- and 3rd-degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with verapamil

**Precautions:** Verapamil should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage Verapamil may decrease neuromuscular transmission in patients with Duchenne's muscular dystrophy and may prolong recovery from the neuromuscular blocking agent vecuronium. It may be necessary to decrease verapamil dosage in patients with attenuated neuromuscular transmission. Combined therapy with beta-adrenergic blockers and verapamil may result in additive negative effects on heart rate, atmoventricular conduction and/or cardiac contractility, there have been reports of excessive bradycardia and AV block, including complete heart block. The risks of such combined therapy may outweigh the benefits. The combination should be used only with caution and close monitoring.

Decreased metoprolol clearance may occur with combined use. Chronic verapamil treatment can increase serum digoxin levels by 50% to 75% during the first week of therapy, which can result in digitalis toxicity. In patients with hepatic cirrhosis, verapamil may reduce total body clearance and extrarenal clearance of digitoxin. The digoxin dose should be reduced when verapamil is given, and the patient carefully monitored. Verapamil will usually have an additive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after verapamil administration. Concomitant use of flecainide and verapamil may have additive effects on myocardial contractility, AV conduction, and repolarization. Combined verapamil and quinidine therapy in patients with hypertrophic cardiomyopathy should be avoided, since significant hypotension may result. Concomitant use of lithium and verapamil may result in a lowering of serum lithium levels or increased sensitivity to lithium. Patients receiving both drugs must be monitored carefully. Verapamil may increase carbamazepine concentrations during combined use. Rifampin may reduce verapamil bioavailability. Phenobarbital may increase verapamil clearance. Verapamil may increase serum levels of cyclosporin. Concomitant use of inhalation anesthetics and calcium antag onists needs careful titration to avoid excessive cardiovascular depression. Verapamil may potentiate the activity of neuromuscular blocking agents (curare-like and depolarizing), dosage reduction may be required. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test.

Pregnancy Category C There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. Verapamil is excreted in breast milk, therefore, nursing should be discontinued during verapamil use.

Adverse Reactions: Constipation (7.3%), dizziness (3.3%), nausea (2.7%), hypotension (2.5%)

headache (2.2%), edema (19%), CHF, pulmonary edema (18%), fatgue (17%), dyspnea (1.4%) bradycardia HR < 50/min (1.4%), AV block total 1°,2°,3° (1.2%), 2° and 3° (0.8%), rash (1.2%) flushing (0.6%), elevated liver enzymes. The following reactions, reported in 1.0% or less of patients, occurred under conditions where a causal relationship is uncertain, angina pectoris, atrioventricular dissociation, chest pain, claudication, myocardial infarction, palpitations, purpura (vasculitis), syncope diarrhea, dry mouth, gastrointestinal distress, gingival hyperplasia, ecchymosis or bruising, cerebro-vascular accident, confusion, equilibrium disorders, insomnia, muscle cramps, paresthesia, psychotic symptoms, shakiness, somnolence, arthralgia and rash, exanthema, hair loss, hyperkeratosis, macules, sweating, urticaria, Stevens-Johnson syndrome, erythema multiforme, blurred vision, gynecomastia, increased urination, spotty menstruation, impotence. 12/21/89 • P90-W 198V

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# The management and treatment of an abnormal Pap smear



Richard S. Hansell, M.D. Robert E. Rogers, M.D.

The technique for evaluating cervical cancer and the problems associated with evaluating cytological material have been discussed elsewhere. However, the management and treatment of an abnormal Pap smear are equally important in reducing the 7,000 deaths from cervical carcinoma expected in the United States this year.

After the Pap smear report returns from the pathologist, the clinician must interpret the report and determine a plan of management.

Atypia

When atypia is found on a cytologic examination, it should be a red flag to the clinician to suspect an abnormality and follow up on the patient. Frequently, a specific inflammatory agent, such as Trichomonas, Gardnerella or Monilia, may be identified on the smear. The patient should be evaluated with a wet mount, have cultures taken if necessary and have the infection treated appropriately. The next important step is to repeat the Pap smear in two to three months, to verify that atypia seen was only from the inflammatory process and that it

was cured by the therapy.

If atypia with no evidence of an inflammatory process or if repeated atypias, even with inflammation, are found, colposcopy should be considered. Approximately 25% of patients with atypia without inflammation will have cervical dysplasia on biopsy.<sup>3,4</sup>

Regardless of a patient's age, a woman in whom atypical columnar cells are found should undergo evaluation of the endocervix and endometrium. Postmenopausal women with atrophic changes and benign examinations may be treated with four weeks of estrogen before repeating the cervical cytology. If abnormalities are found again, colposcopy should be performed.

The management of a Pap smear report stating "no endocervical cells noted" has been addressed.<sup>6,7</sup> As suggested by the Centers for Disease Control, "the presence or absence of identifiable endocervical cells does not appear to have a major bearing on the adequacy or inadequacy of the cervical cytologic sample.<sup>77</sup> In essence, it is important to perform the best possible sampling of the ectocervix, using a spatula, and the endocervix, using an endocervical brush.

Squamous metaplasia alone is a normal process. Hyperkeratosis

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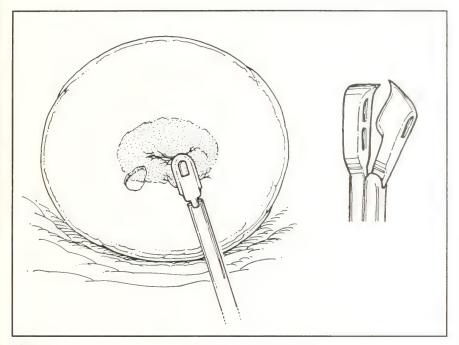


Figure 1

is benign, though may raise the suspicion of condyloma or mask more abnormal changes and ideally should be followed up. Findings of atypical reserve cell hyperplasia should alert the clinician to the presence of an entity that may progress rapidly to small cell carcinoma. Thorough evaluation of the endocervix is necessary.

## Dysplasia or suspicion of invasive disease

The cytologic diagnosis of dysplasia indicates the need for a colposcopic examination. While colposcopy for mild dysplasia may be controversial,8 a good rule of thumb should be that if any dysplastic process is found on a Pap smear, colposcopic-directed biopsy and endocervical curettage (ECC) should be performed.

The colposcope is a stereoscopic magnifier with a powerful light, allowing the evaluation of the epithelial surface and vascular patterns of the cervix. It enables an experienced colposcopist to determine the best biopsy site and replaces the cervical staining with random four-quadrant biopsies of the cervix from days past (*Figure* 1).

Cervical examination must be meticulous and complete. Physicians should remember the dictum to do the patient no harm. Cervical dysplasia is not cancer ... but it is imperative the diagnosis be made, and an invasive carcinoma must not be missed. The goal of colposcopy is to diagnose the patient's problem as easily as possible, avoiding conization when feasible.

The colposcopist visualizes the transformation zone, the portion of the cervix where the squamous-columnar junction is found. This entire squamocolumnar junction must be visualized 360° or the colposcopy is inadequate. Should lesions be identified that enter the endocervical canal and cannot be visualized in their entirety, the colposcopy again must be considered inadequate. ECCs, excluding those performed on patients who are pregnant, are routinely performed by most colposcopists (*Figure 2*). Recently, ECC has been a source of controversy regarding high false negative and false positive rates.<sup>9,10</sup> Now, however, ECC continues to be the standard for evaluating the endocervical canal.

Colposcopy can be of value for patient screening;<sup>11,12</sup> however, because of the costs involved, the expertise required and the time commitment necessary to screen normal patients, the technique is not practical. Problems for the colposcopist to overcome include recognizing an inadequate exam and being certain not to miss the often subtle changes noted with a microinvasive carcinoma of the cervix

Cervicography is an option as a screening tool.<sup>13</sup> This technique essentially records the magnified cervix on film, replacing the

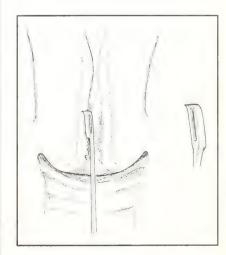


Figure 2

colposcopist. The film is later interpreted by a person skilled in cervicography. Ideally, this technique should not be used on the patient with an abnormal Pap smear, as clinical decisions cannot be made only on the basis of a cervicogram.

#### **Treatment**

The definitive treatment of a cervical abnormality depends on the diagnosis, as well as the physician's ability to make a definitive diagnosis.

If a specific infection is found, it should be treated with the appropriate drug and the Pap smear repeated. Atypias without inflammation may be followed or treated with antibiotic creams, systemic antibiotics or evaluated by colposcopy and biopsy.

Treatment of the dysplasia/ carcinoma in situ group can be divided into two basic management schemes, destruction or excision.

#### Destruction

To qualify for the destruction mode, the following criteria must be met: 1) The lesion must be identified in its entirety on the portio of the cervix, and the colposcopy must be adequate. 2) The Pap smear and biopsy must be in relative agreement, and there must be no evidence or question of carcinoma. 3) The lesion must not extend into the endocervix, and the ECC must be negative. 4) The patient must be reliable and follow up after conservative therapy.<sup>14</sup>

Should any of these criteria not be met, the physician should reconsider using a destructive form of therapy. Remember the goals: Don't harm the patient, and don't miss an invasive lesion.

Several techniques for destroying the transformation zone have been used.

Electrocautery has been used for decades. The largest series was performed in England on a study of approximately 400,000 patients.<sup>15</sup> The authors were evaluating the protective effect of electrocautery on carcinoma of the cervix. A more recent study showed about an 86% overall success rate for the treatment of various dysplasias.<sup>16</sup>

The second option is cryotherapy. Freezing destroys tissue to about 5 mm deep. Carbon dioxide and nitrous oxide have been used as refrigerants. The most popular procedure has been a double-freeze technique in which the tissue is frozen to at least -70° C for approximately three minutes, followed by a four- to five-minute pause, and a repeat freeze for another three minutes. The Wright describes a single five-minute freeze with comparable results 20

Research has shown that the depth of destruction is important when evaluating cure rates.<sup>21</sup> Three questions should be considered: 1) How long is enough? 2) Did the instrument freeze to the proper temperature (use an instrument equipped with a thermome-

ter or tissue probe)? 3) Will the squamocolumnar junction heal on the cervix, where it can be easily visualized should the lesion persist? Both electrocautery and cryocautery are inexpensive and easily available.

Cold coagulation is another form of destructive therapy. While never popular in the United States, the procedure has been used in Scotland. The term "cold coagulation" is a misnomer. Using a thermocouple, the tissue is actually heated to 120° C, and the tissue is boiled. This technique differs from electrocautery, where the destruction is via broiling. The limitations would seem similar.<sup>22</sup>

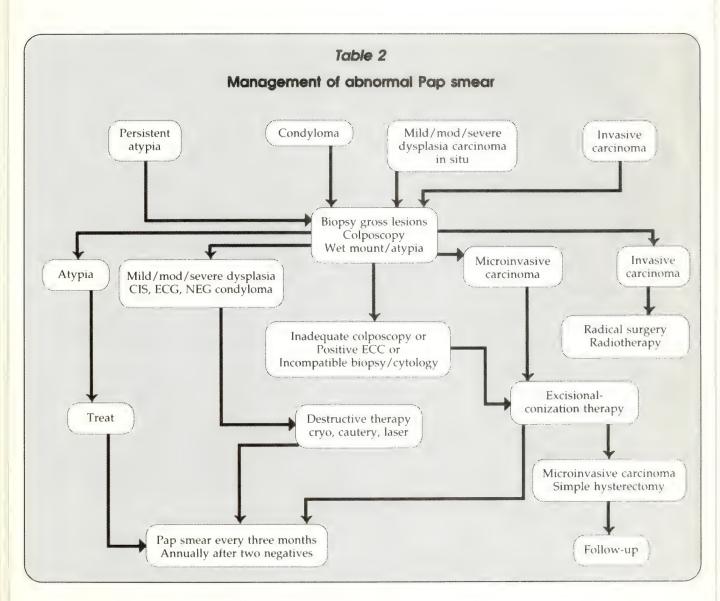
The newer, fancier, most costly technique of laser therapy has become popular during the last few years. Because of its "Star Wars" likeness, it has captured a tremendous amount of press and interest. The technique of laser vaporization or evaporization has become a popular and safe form of therapy for cervical dysplasia. Problems with the laser include its high cost and the expertise required to use the equipment.

When treating a patient with a destructive technique, three guidelines should be followed: 1)

#### Table 1

## Comparison of success rate in patients treated once for dysplasia on the ectocervix<sup>14</sup>

	SUCCESS			
	Mild	Moderate	Severe	
Destructive method	dysplasia	dysplasia	dysplasia	
Electrocoagulation	94%	88%	83%	
Cryocoagulation	94%	91%	85%	
Laser evaporation	94%	93%	91%	



Treat to the depth of 5 mm to 7 mm. Perhaps this is an advantage of laser use; it allows very precise control over what is vaporized and to what depth. 2) Treat the entire transformation zone, not just the lesion. 3) Don't treat lesions involving the endocervix.

As long as these guidelines are followed when reviewing a large series of the various destructive formats, they are comparable

(*Table 1*).<sup>14</sup> All are equally effective for mild dysplasia, with success rates of approximately 94%. As the lesion progresses to severe dysplasia or carcinoma in situ, laser therapy appears to be superior to electrocautery.<sup>14</sup> Complications are roughly comparable among all techniques.

#### Excision

Should the criteria for destructive

forms of therapy not be met, an excisional technique is necessary. Examples of when excisional therapy is needed include: 1) inadequate colposcopy (can't see the entire transformation zone or can't see all the lesion); 2) positive ECC; 3) significant lack of correlation between Pap smear and biopsy, especially if the Pap smear is much worse; 4) any question of malignancy; and 5) an inexperi-

enced colposcopist.

Excision may be accomplished primarily in one of three ways, conization with a knife, laser conization or hysterectomy.

In a large series of patients, the success rate for treating women for noninvasive disease with a cold knife cone is approximately 97%.<sup>24,25</sup> Even in patients where a margin of the conization specimen is positive for dysplasia, approximately three-fourths of the patients will have normal Pap smears on follow-up.26 A premise outlined earlier in this article was to try to avoid conization, and, through the destructive techniques outlined, this often can be accomplished. However, in patients in whom conization is necessary, it provides an excellent form of therapy in addition to being diagnostic.

The possible risks of conization include hemorrhage, infection, injury to bowel or bladder, problems with a stenotic or incompetent cervix and infertility. These risks make conization an unacceptable form of primary diagnostic management of the abnormal Pap smear. A diagnosis of invasive cancer made at colposcopy will obviate conization.

Cervical conization may be accomplished with a knife or a laser. Ideally, when the knife is used, hemostasis should be obtained with vasopressin, cautery and/or sutures inside the surgical site, in a single-stitch fashion. While providing excellent hemostasis, Sturmdorf sutures allow the cervix to heal with the squamocolumnar junction up in the endocervical canal and to be less visible should a subsequent atypical Pap smear be found.<sup>27</sup>

Using a laser for excisional

conization allows the operator to rapidly perform the procedure with minimal blood loss. Since a high-power density is used, an easily visualized edge to the conization specimen enables the pathologist to interpret microscopically the margins of the cone. Because laser conization allows a rapid healing process with reepithelization of the operative site, the physician is able to repeat a Pap smear within 30 days after the conization. Laser surgery also rarely requires a general anesthetic. One marked advantage of laser surgery is that, after conization using a CO<sub>2</sub> laser, the squamocolumnar junction can be visualized in about two-thirds of patients. However, in patients with a history of cold knife conization, using simple sutures to evert the crater, only 39% of the squamocolumnar junctions could be seen.<sup>28</sup>

Hysterectomy is still a consideration for patients with advanced dysplasia or carcinoma in situ, particularly those with some other gynecologic problem, such as prolapse, incontinence or other pelvic abnormalities. Physicians must take care to rule out invasive cancer, even if conization becomes necessary before hysterectomy. Physicians and patients must understand there is still a risk of recurrent dysplasia (0.8%) or invasive carcinoma (0.3%), even after hysterectomy. <sup>24,25</sup>

Pregnancy

Obviously, pregnancy is a special time in a woman's life. An abnormal Pap smear can be a frightening experience because many women equate it with cancer. The patient must receive a full explanation of what has been found and how the findings will be evaluated.

If possible, physicians should treat pregnant women who have atypical smears that result from infection, while remembering the limitations that pregnancy imposes on the use of tetracycline and metronidazole. Colposcopy should be performed for the same indications that apply to the nonpregnant patient. In many cases, visualization of the cervix is facilitated in the pregnant state because the endocervical canal everts, leaving the squamocolumnar junction well out on the cervix and completely visible. An ECC should not be done during pregnancy.

The pregnant patient with colposcopically proven uninvasive cervical neoplasia may be followed expectantly through delivery, though cryotherapy of the cervix has been used without adverse outcome.<sup>29</sup> Following delivery, the patient should be reevaluated and treated with one of the destructive or excisional techniques outlined. If invasive carcinoma cannot be ruled out, cervical conization may be necessary during gestation.

Summary

Table 2 summarizes the management of the abnormal Pap smear. Management of dysplasia in this institution is aggressive – as destructive therapy of mild dysplasia is advised, opposed to watching the patient and treating only if the disease persists.<sup>14</sup> The rationale for this is the 33% to 45% failure rate for follow-up appointments in the primarily inner-city population served. The key to follow-up is to repeat cervical cytology in all patients treated, even those treated with hysterectomy, every three months until two consecutive normal smears

are obtained. At that time, surveillance and intervals may be modified, but screening should continue at least annually.

The mortality rate of carcinoma of the cervix has dropped precipitously during the last 40 years, in part, from simple screening of the cervix with the Papanicolaou smear. The effort to treat premalignant changes has been

rewarded. The use of the colposcope and destructive forms of therapy have allowed successful treatment of patients with less morbidity and mortality than the immediate reliance on cervical conization. Remember, conization is still indicated and prudent in selected patients. Following these guidelines may contribute to the downward trend.

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#### June CME quiz answers

The following letters are the answers to the CME quiz that appeared in the June 1990 issue: "Lasers in dermatology."

- 1. a 6. a
- 2. c 7. a
- 3. c 8. a
- 4. a 9. c 5. c 10. a

## cme quiz

To obtain one hour of Category I CME credit, answer the following questions by circling the correct answer on the answer sheet below. Complete the application form and mail it to: Indiana University School of Medicine, CME Division, BR 156, 1226 W. Michigan St., Indianapolis, IN 46223.

#### The management and treatment of an abnormal Pap smear

- The next best step in management of the Pap smear with moderate dysplasia:
  - a. cervical conization
  - b. cervicography
  - c. colposcopy
  - d. random four quadrant biopsies
- 2. Best patient in whom to destroy a dysplasia:
  - a. Pap shows CIS, biopsy shows metaplasia
  - b. positive ECC
  - c. reliable patient
  - d. suspicious for cancer
- Accepted destructive forms of therapy include:
  - a. cryotherapy for seven minutes on, five minutes off, seven minutes on
  - b. electrocautery with a success rate of approximately 86%
  - c. laser of lesions extending into the endocervical canal
  - d. the advantage to cold coagulation is being able to treat only the lesion, not the entire transformation zone
- 4. The patient's status post vaginal hysterectomy for severe dysplasia:
  - a. needs cytology of the vaginal apex every three months until two are normal and then at least annually

- b. never needs another Pap smear
- c. runs a failure rate (recurrence) of approximately 3%
- d. should have Pap smears annually
- 5. Goals and treatment of abnormal Pap smears:
  - a. be aggressive with dysplasia; it's malignant
  - b. don't harm the patient
  - c. immediately treat during pregnancy
  - d. proceed directly to conization; after all, its failure rate is less than 1%
- 6. In pregnancy:
  - a. always wait until two Pap smears have shown dysplasia before proceeding with evaluation
  - b. colposcopy may likely cause a spontaneous abortion
  - c. endocervical curettage should be
  - d. the squamocolumnar junction often is everted well out on the portio of the cervix
- 7. Advantage of laser therapy:
  - a. precise control of depth
  - b. precise control over tissue destroyed
  - c. rapid healing
  - d. squamocolumnar junction often heals out on the portio of the cervix
  - e. all of the above

- 8. Knife cervical conization:
  - a. allows excellent pathologic evaluation of the surgical specimen
  - allows the squamocolumnar junction to heal out on the portio of the cervix in almost all cases
  - almost never is complicated by subsequent problems with cervical incompetence
  - d. usually entails less blood loss than laser excision
- 9. Pap smear exhibiting atypia only:
  - a. if caused by atrophy, probably won't respond to estrogen replacement
  - b. if involving atypical columnar cells requires an endocervical curettage only
  - with no inflammation found is associated with a 25% rate of dysplasia upon colposcopic examination
  - d. would rarely be found if no endocervical cells are noted
- The findings of microglandular hyperplasia require evaluation of the endocervix
  - a. true
  - b. false

#### Answer sheet for CME quiz

I wish to apply for one hour of Category I AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on this answer sheet. I understand my answer sheet will be graded confidentially, at no cost to me, and notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score, but the answers will be published in the next issue of INDIANA MEDICINE.

Name: (please print or type)

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### Answers (circle one)

- 1. abcd
- 2. abcd
- 3. abcd
- 4. abcd
- 5. abcd
- 6. abcd
- 7. abcde 8. abcd
- 9. abcd
- 10. a b



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## Tennis elbow

James J. Creighton, Jr., M.D. Richard S. Idler, M.D. James W. Strickland, M.D. Indianapolis

Tennis elbow or lateral epicondylitis is a condition in which pain is localized to the lateral or outer aspect of the elbow. It has been reported in medical literature since the 1900s and arises from tennis, specifically the backhand stroke. Ergonomic studies have demonstrated that these same muscles are at risk of injury relative to forearm and hand use in the workplace.

Symptoms are reproduced most consistently with extension of the wrist. Placing the forearm in pronation, with the palm facing downward and the wrist in neutral or extension, also will reproduce symptoms of lateral epicondylitis.

Anatomical studies demonstrate the muscles involved are

those that extend the wrist, specifically the extensor carpi radialis longus and brevis muscles, which arise from the lateral epicondyle (Figure 1). The topographic anatomy in this area finds the extensor carpi radialis longus tendon to be superficial to the brevis in the region of insertion on the lateral epicondyle of the humerus. The extensor carpi radialis brevis muscle, as it crosses the elbow, undergoes the greatest amount of muscle lengthening in forearm pronation, wrist palmar flexion and ulnar deviation. This mechanical tension-induced injury to the extensor carpi radialis brevis muscle from forearm position is compounded by the shear forces that this muscle is exposed to as the elbow moves through flexion and extension against the radial head and joint capsule.

Pathologically, microscopic tears within the extensor carpi radialis brevis origin have been proposed as the cause for symptoms in this condition.<sup>1</sup> Nirschl has called the pathologic findings within the tendon of the extensor carpi radialis brevis "fibroangiomatous hyperplasia." He reports that these same microscopic tendon tears, associated with clinical symptoms, have been found in other areas of tendinitis such as Achilles and patellar tendinitis.

Physical examination needs to differentiate lateral epicondylar symptoms from cervical radiculopathy, internal shoulder derangement, compression of the radial nerve within the radial tunnel or intra-articular elbow joint pathology. Radial tunnel compression of the radial nerve elicits maximal tenderness over the forearm supinator some six centimeters distal to the epicondyle. In cases of chronic lateral epicondylitis, differentiation of these two conditions often is difficult and may require differential nerve blocks to ensure accurate diagnosis.

Radiographs are of little help

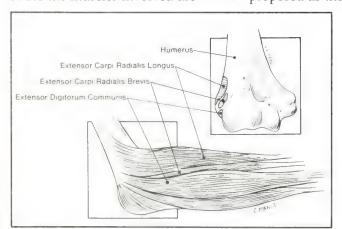


Figure 1: Drawing of anatomy about the lateral epicondyle.

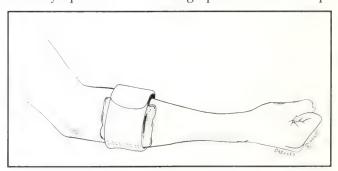


Figure 2: Forearm brace in position over the extensor muscle mass to prevent maximum muscle expansion.

in the diagnosis of tennis elbow. They do, however, help rule out other potential sources of pain about the elbow joint.

The goal of the treatment protocol is to allow the fibroangiomatous hyperplastic tissue to mature. As is true of any healing tissue, the best chance for successful non-surgical treatment occurs with proper management after the initial insult.

Conservative management of tennis elbow involves reducing inflammation and pain through ice, rest and anti-inflammatory medications. Rest in this situation eliminates painful activities, specifically grasping objects with forearm pronation and concomitant wrist extension. If symptoms persist after the initial period of 10 to 14 days, a splint that immobilizes the wrist can be used, thus eliminating activities that involve wrist extension.

In chronic cases of tennis elbow, complete immobilization of the extremity may be necessary for two to three weeks to obtain relief of symptoms. The criterion for healing is the defervescence of pain without medication. Once this has occurred, the patient can begin a rehabilitation program.

Exercise follows a specific protocol established to improve forearm strength, flexibility and endurance. This program emphasizes rehabilitation through a cautious use of wrist weights and repetitive wrist exercise. No increase in weight is permitted until painless wrist curls, repetitions of wrist flexion and extension, can be performed. Once forearm rehabilitation has been achieved, a maintenance rehabilitation program is recommended.

Counterforce bracing to prevent muscle tension overload to the elbow is the basis for using a tennis elbow band (Figure 2). Studies have demonstrated that this non-elastic muscle support decreases electromyogram muscle activity through its limitation in muscle expansion, thereby dampening the forces transmitted to the muscle origin.

For chronic or resistant tennis elbow, cortisone injection may be considered. Cortisone is not recommended as a primary treatment choice because it can induce atrophic tissue changes. When it is needed to control pain that is limiting rehabilitation, a combination of local anesthetic and steroid preparation is injected in the region of the insertion of the extensor carpi radialis brevis tendon.

Sports equipment and technique modifications are important aspects of conservative management. Using less tightly strung rackets and graphite frames rather than apoxies is recommended to dampen ball impact and transmit less vibration to the forearm. Proper grip size is important with respect to torsional control of the racket. Proper grip size also is important for laborers who use hand held tools (Figure 3).

Work-related epicondylitis also requires activity modification. The posture that places a forearm at risk, hyperpronation with wrist extension, needs to be modified through ergonomic studies. Job modification and retraining are often necessary treatment recommendations, but because of the difficulty of incorporating these prevention techniques into the workplace, recurrence of work-related tennis elbow symptoms is common and often disabling.

If symptoms persist after conservative treatment, surgery is recommended. This rarely occurs within six months of initial injury. Surgical debridement of the fi-

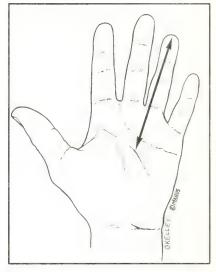


Figure 3: Proper grip size is determined by measuring from the tip of the ring finger to the proximal palmar crease between the middle and ring finger. This distance corresponds to the proper grip size.

broangiomatous hyperplastic tissue at the insertion of the extensor carpi radialis brevis tendon is performed most often. More extensive extensor tendon release may be needed if the extensor carpi radials longus appears involved. Decompression of the radial nerve at the radial tunnel also has been recommended.

Generally, the patients are asymptomatic within two months of surgery. Return to unrestricted activity relative to the upper extremity depends on progress in rehabilitation, which may require an additional four months.

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# Risk factors for late-onset necrotizing enterocolitis

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Editor's note: This article won the 1988 Resident Physician Essay Contest.

Necrotizing enterocolitis (NEC) predominantly affects the premature infant in the neonatal intensive care unit (NICU). Prematurity generally is considered the most important risk factor for this condition. The prevalence of NEC varies between institutions and depends primarily on the level of the nursery and the volume of premature infants admitted. Between 2% and 5% of total admissions to NICU develop NEC.<sup>1</sup>

The pathogenesis of NEC is controversial and probably multifactorial in origin. Studies have looked at NEC in infants<sup>1,2</sup> and in larger infants,<sup>3</sup> as well as the effects of oral feedings,<sup>4,5</sup> various medications<sup>6,7</sup> and infectious etiologies<sup>8,9</sup> on NEC. The etiology of NEC remains unknown. There have been no published studies on late-onset NEC. Theoretically, postnatal management, rather than birth events, should influence the occurrence of NEC in late-onset disease.

Subjects and methods All newborns hospitalized in our

#### Abstract

The etiology of necrotizing enterocolitis (NEC) is unknown. We conducted a retrospective, case-controlled study of 23 infants hospitalized during a five-year period who developed NEC after the 11th day of life (late-onset NEC). We evaluated 58 different factors among the case and control populations to determine if there were any statistically significant differences between the two populations. Our data showed a statistically significant association between the occurrence of NEC and the use of ventilatory support (both mechanical ventilation and nasopharyngeal continuous positive airway pressure (NPCPAP)), the transpyloric (TP) feeding route and the addition of glucose polymers to feeds.

Level III NICU from January 1981 to December 1986 with clinical (i.e., increased residuals, abdominal distention, heme positive stools/emesis, or bright red blood per rectum) and/or radiographical (i.e., pneumatosis intestinalis, portal vein gas or frank evidence of pneumoperitoneum) evidence of late-onset NEC were included in our study. Late-onset was defined as occurring after the 11th day of life. Infants who developed NEC before 12 days of life were excluded from our study.

The study and control groups each included 23 infants. Each control case was matched for gestational age. The next infant born with a gestational age within one week of the subject was designated as the control.

The subjects from the study group were compared one-on-one with the control group, and 58

variables were subjected to one of three different statistical tests. The paired t-test was used for numerical factors, and the statistical significance of categorical factors (i.e., Yes/No variables) was analyzed using the McNemar test. A logistic regression model was necessary to compare the factor "time to full feeds;" this factor could not be compared alone because it was dependent on another variable.

We did not eliminate from our control population neonates who died before the 12th day of life (9/23) or the two neonates that developed NEC (also in the study group). Exclusion of these controls could bias the analysis because a healthier population would be selected out.

#### Results

Twenty-three infants developed

late-onset NEC during the fiveyear study (January 1981 to December 1986). The mean gestational age of the study group was  $27.78 \text{ weeks} \pm 2.27 \text{ (SEM=0.473)},$ while that of the control group was 27.85 weeks  $\pm 2.17$  (SEM = 0.452). The mean difference between the birthdates of the two groups was  $15.17 \pm 21.43$  days (SEM=4.47). Fifty-eight variables were analyzed (Table). The following factors are statistically significant: p value – Feeding supplement: glucose polymers -0.0156; NPCPAP - 0.0312; Route of feeds: TP - 0.0317; Days on ventilator - 0.0468.

#### Discussion

In this retrospective case-controlled study, we did not attempt to define the pathogenesis of NEC. We were interested in trying to better define risk factors for late-onset NEC, a condition that eventually may prove to be different from early-onset NEC. This study is unique because no study specifically evaluating lateonset NEC has been published to date. Since NEC typically occurs between the fifth and 10th days of life,<sup>10</sup> late-onset NEC was arbitrarily defined as NEC beginning after 11 days of age. This population was studied in an attempt to select perinatal factors. We presume that perinatal factors play the most important role in causing earlier-onset NEC. However, with late-onset NEC, various NICU management factors may be responsible for the disease.

Both "days on ventilator" and NPCPAP were statistically significant factors. The duration or amount of NPCPAP was not analyzed in this study. The association of NEC and NPCPAP theoretically could result from bowel

#### Table

#### Numerical factors

- Gestational age
- Apgar scores
- Days on ventilator
- Hematocrit
- Day feeds were started
- Birth weight

#### Dependent factors

Time to full feeds

#### Categorical factors

- ➡ Transport
- Umbilical artery catheter
- ➡ Patent ductus arteriosus
- Apnea & bradycardia
- Sepsis
- ➡ Ventilator (IMV)
- Nasopharyngeal CPAP
- ➡ Feeds
- Full strength feeds
- **➡** Formulas
  - Breastmilk:
    - Similac Special Care
  - Ross Low Birth Weight
  - Similac Special Care
  - breastmilk
  - Isomil
  - Enfamil Premature
- Route of feeds
  - transpyloric
  - nasogastric
  - nipple

- Feed supplements
  - glucose polymers
  - MCT oil
  - sodium chloride
  - potassium chloride
- **■** Sex
- Medications
  - aminophylline
  - ampicillin
  - aquasol E
  - bethanechol
  - calcium gluconate
  - chloral hydrate
  - Choledyl
  - Dilantin
  - Dopram
  - Fer-In-Sol
  - Folvite
  - gentamicin
  - Indocin
  - insulin
  - Kayexelate
  - Lanoxin
  - Lasix
  - lidocaine
  - Maalox
  - Mandol
  - nafcillin
  - marcinin
  - phenobarbital
  - Poly-Vi-Sol
  - Riopan
  - sodium bicarbonate
  - sodium chloride
  - Vancomycin
  - Vi-Daylin

distention secondary to NPCPAP. We are not suggesting that the use of NPCPAP be abandoned, given its possible role in the prevention of bronchopulmonary dysplasia.<sup>11</sup> On the other hand, this possible risk of NPCPAP needs to be recognized and NPCPAP used judiciously.

Three factors related to feeding (whether infants were fed or

not, whether they were able to achieve full feeds and the time required to advance to full feeds) were not significant. In the past, enteral feeds were believed to be a definite risk factor for NEC. Many institutions did not feed a premature infant for a prolonged period of time in an attempt to minimize that risk. Two recent studies failed to provide evidence

that delayed oral feedings can prevent NEC. The first study,4 which was done retrospectively, showed paradoxically that infants who were totally parenterally nourished had a higher incidence of NEC (60%) when compared to infants who had their enteral feeds slowly advanced (22%). The subsequent prospective study<sup>5</sup> also suggested that the time of initiation of enteral feeding may not be a significant contributor to NEC. Our data agree with the theory that the initiation of feeds, as well as the time of initiation, is not significant in the etiology of NEC.

The use of glucose polymers as a nutritional supplement was a statistically significant factor. This may be due to its osmolality. It has been postulated that hyperosmolar feedings can precipitate NEC. Cooper and associates<sup>12</sup> demonstrated pathological changes in isolated rat intestine exposed to hyperosmolar feedings. DeLemos<sup>13</sup> described a NEC-like disease in premature goats exposed to similar feeds. Book et al14 demonstrated a dramatic rise in frequency of NEC in infants fed a hyperosmolar formula. There is some evidence that hypertonic solutions may alter intestinal perfusion. This possible increased risk for NEC should be considered when using glucose polymers to increase the caloric density of formulas.

Transpyloric feedings previously have been associated with NEC.<sup>15</sup> This may be the result of placing feeding substrates directly on small bowel mucosa without the dilutional effects of gastric secretions. Our study also confirms a statistically significant

association between NEC and TP feeds, suggesting that this feeding method not be used as a routine method for feeding preterm infants.

Other factors analyzed as potential risk factors for NEC included: 28 medications, patent ductus arteriosus, umbilical artery catheter, apnea and bradycardia and hematocrit. None of these revealed a significant difference between the study and control populations.

#### Conclusion

Four variables were identified as risk factors for late-onset NEC: 1) days on ventilator; 2) NPCPAP; 3) TP feeds; and 4) the use of glucose polymers in feeds. Each of these factors can be rationally correlated with NEC. However, because so many factors were analyzed in this study, their statistical significance could have resulted from the multiple comparisons dilemma.16 A large prospective study looking specifically at ventilator management and feeding techniques might confirm these associations and provide impetus to modify our current methods.

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# The signal averaged electrocardiogram:

## A practical primer

John D. Slack, M.D. Nancy A. Branyas, M.D. Barbara C. Weiler, R.N. Indianapolis

The standard 12-lead electrocardiogram (ECG) provides information regarding heart rhythm and structural integrity. However, the technology used for ECG acquisition as well as our interpretive abilities essentially has been static for decades. New advances in the computer sciences as well as electrical amplification and filtering techniques have made possible a more sophisticated analysis of the heart's electrical signal.

By interfacing a mini-computer with a modified ECG machine, low-frequency electrical activity, resulting from "slow" depolarization of the ventricular myocardium, may be measured, recorded and stored for data manipulation/processing.<sup>1-3</sup>

The information thus derived, termed the signal averaged electrocardiogram (SAECG), contains information relevant to an individual patient's propensity to develop and sustain a ventricular tachycardia (VT). Because the SAECG measures conduction time in the myocardium, it may reflect

#### **Abstract**

Sudden cardiac death unfortunately continues to be a relatively common clinical problem despite recent advances in anti-arrhythmic medications, cardiac surgery and angioplasty. A non-invasive screening test capable of identifying specific patients at high risk for sudden cardiac death is needed. A technique using sophisticated electronic signal filtration and computerized signal enhancement permits analysis of the electrocardiogram for evidence of ventricular conduction delay, which may serve as a matrix for sustained ventricular tachycardia. This procedure, termed the signal averaged electrocardiogram, is reviewed. Its use in context with the left ventricular ejection fraction, Holter monitoring and exercise testing also is examined.

the presence of a matrix that allows a ventricular tachyarrhythmia to become established and continue. Therefore, these data are quite different from, yet complementary to, continuous (e.g., Holter) monitoring that looks for frequent or complex ventricular premature beats (VPBs) that could trigger the start of such a ventricular tachyarrhythmia.

Historical perspective

Development and widespread application of current diagnostic and therapeutic tools has not appreciably decreased the incidence of sudden cardiac death, which affects approximately 400,000 people annually in this country. Certain risk factors for sudden

death have been identified, such as left ventricular dysfunction and the presence of complex ectopy on Holter monitoring, yet poor correlation, temporal uncertainty and lack of clear indicators of therapeutic efficacy cloud the clinician's application of these measures in individual cases.

It would be helpful to know which people have the matrix to sustain serious, lifethreatening arrhythmia so therapeutic efforts can be more properly applied.<sup>1,2</sup> Because the SAECG appears to measure ventricular electrical activity and investigators have determined that regional abnormalities in ventricular electrical activity are closely associated with the development of certain types of

ventricular tachycardia, the SAECG is useful in determining which patients with poor LV function and/or VPBs on ECG monitoring are at highest risk for sudden death.<sup>4</sup>

#### **Basic studies**

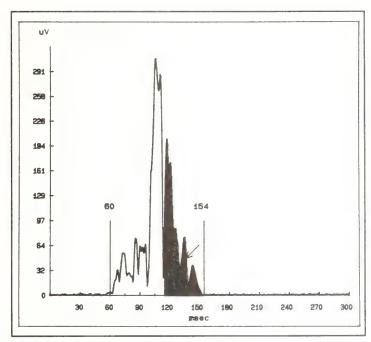
In 1973, Boineau and Cox recorded electrical activity in ischemic regions of the canine heart that persisted well beyond the end of the QRS complex.<sup>5</sup> Subsequent studies using epicardial electrode patches have verified that persistent low-voltage electrical activity usually found adjacent to areas of myocardial damage is a constant element in most ventricular tachycardias.

Because these late potentials (so called because they reflect electrical activity measured at the end of the QRS on the ECG) involve electrical activity in only a very small portion of the myocardium, a standard 12-lead ECG is incapable of detecting their presence. The SAECG, which electrically sums multiple heartbeats while simultaneously filtering extrinsic noise from muscle activity, 60-cycle per second electrical activity, etc. makes it possible to record, display and analyze these late potentials.

Technique

A high-resolution ECG machine with high-gain amplification and a bi-directional filter is used to record the X, Y and Z leads from seven electrodes placed on the patient's thorax. The ECG output is amplified, filtered, digitized, processed and stored in a minicomputer. Each QRST different in morphology and timing from the patient's normal pattern is excluded from subsequent analyses.

In a normal study, approximately 200 to 300 identical beats

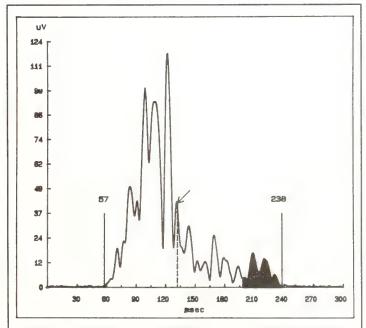


Predictor analysis: Finley55 1/23/89 1Noise. CFG Vector

Type: Bidir Band: Hipass H Freq: 40 H Order: 4

QRS totals: DUR: 94 ms RMS: 110.43uV IN: 7.21 uVs Terminal: QRS RMS: 84.79 uV MN: 62.93uV LAS: 18 ms Scale: 3.1

Figure 1A: A normal signal averaged ECG. The numbers (60 to 154 = 94 msec) indicate timing of computer detected onset/offset of QRS. The shaded area covers the area of integration yielding the RMS score. The arrow indicates the terminal QRS 40 mvolt timing mark used to calculate the LAS score.



Predictor analysis: DEW337/19 7/25/88 1Noise. CFG Vector

Type: Bidir Band: Hipass H Freq: 40 H Order: 4

QRS totals: DUR: 181 ms RMS: 38.78uV IN: 4.81 uVs Terminal: QRS RMS: 9.35 uV MN: 8.13uV LAS: 106 ms Scale: 8.1

Figure 1B: An abnormal signal averaged ECG. Note the marked prolongation of both the QRS duration (57 to 238 = 181 msec) and LAS (106 msec). The RMS 40 is very low at 9.35 (shaded area).

are acquired. Two types of analyses may be used: time domain or frequency domain.<sup>6</sup> The former analyzes the duration and energy of late potentials and is more commonly used clinically. Frequency domain analysis examines the frequency spectra of the electrical patterns. It requires enhanced computer capability and provides little additional information when compared to the time domain analysis except in selected circumstances (see below).

Therefore, SAECG data calculation/reporting usually consists of vector summation of the X, Y and Z signals to combine the three orthogonal wave forms into a single wave form for analysis (Figure 1). The computer then automatically selects the beginning and end of the QRS, including any late potentials, based on pre-set data-to-background noise level conditions. The point at which the downslope of the R wave first reaches the 40 microvolts amplitude level to the end of the remaining signal is reported as an arbitrary measure of the duration of the late potentials (LAS 40=low amplitude signal after 40 mv). Finally, the root mean square (RMS) energy of the terminal 40 msec of the ORS is calculated. Three measurements are calculated for the final report. They are: 1) total QRS duration, including any late potentials present; 2) duration of late potentials (LAS 40); and 3) energy content of the terminal 40 msec of the QRS (RMS 40).

The usual normal ranges are a QRS duration less than 110 msec, a LAS 40 of less than 40 msec and RMS 40 of greater than 25 mv (*Table 1*). These criteria, however, are arbitrary and not accepted universally. Obviously, the sensi-

tivity and specificity of the SAECG depend on the criteria chosen, and standardization of SAECG reporting should be of highest priority for the future.

Clinical applications (*Table 2*) *Tachycardia* – The most important application of SAECG is a screening test to ascertain the risk of sudden death in select people. Studies have demonstrated that

an abnormal SAECG is found in most patients (48% to 92%) with ischemic heart disease and known prior sustained ventricular tachycardia (VT).<sup>1-3</sup> An abnormal SAECG was recorded in only 7% to 28% of similar ischemic heart disease patients without prior VT.

Subgroup analysis has shown a relatively close correlation between the degree of LV dysfunction, density of ventricular ectopy

#### Table 1

#### Diagnostic criteria for normal SAECG test

- A. 12-lead ECG: QRS normal duration
  - 1. QRS on SAECG ≤ 110 msec
  - 2. RMS ≥ 25 uV
  - 3. LAS  $\leq 40$  msec
- B. 12-lead ECG: QRS shows IVCD with QRS ≤ 110 msec (LAHB or IBBB)
  - 1. QRS on SAECG ≤ 130 msec
  - 2. RMS ≥ 20 uV
  - 3. LAS  $\leq$  60 msec
- C. 12-lead ECG: QRS shows complete BBB with QRS > 110 msec
  - 1. QRS on SAECG ≤ QRS on 12-lead plus 10 msec
  - 2. RMS ≥ 15 uV
  - 3. LAS  $\leq 80$  msec

Absence of two of three criteria indicates abnormal SAECG.

**Abbreviations:** LAHB = left anterior hemiblock; BBB = bundle branch block; I = incomplete (see text).

#### Table 2

#### Indications for SAECG

- 1. Palpitation possible VT as cause
- 2. Postmyocardial infarction VT risk assessment
- 3. Cardiomyopathy VT risk assessment
- 4. Syncope possible VT as cause
- 5. Complex or frequent VPB VT risk assessment

by Holter monitoring and the SAECG, yet the SAECG remains an independent predictor of subsequent development of sustained VT, VF and sudden death. Similar results have been reported for patients with both congestive and hypertrophic myopathies. Most impressive is the very low prevalence of an abnormal SAECG in the normal population, making it highly useful in predicting negative risk if the substrate is stable (e.g., no intermittent ischemia).

Myocardial infarction – Of particular interest are the data predicting VT/sudden death risk in patients after myocardial infarction. Prospective studies have shown that patients with an abnormal SAECG have six times greater occurrence of VT or sudden cardiac death compared to patients with normal SAECG.7 The SAECG yields information in this subgroup of greater predictive accuracy than the measurement of left ventricular function or spontaneous ventricular ectopy on Holter monitoring. Furthermore, a negative SAECG combined with a left ventricular ejection fraction greater than 40% was associated with no serious arrhythmic event despite high density ectopy on Holter monitoring.8 Late potentials appear within hours to one week after acute infarction, and their presence may fluctuate during oneyear follow-up.<sup>9,10</sup>

Evaluation of syncope – Cardiac rhythm disturbance is the cause of syncope in a large percentage of elderly people. A prospective study has indicated that 92% of people with ventricular tachycardia as the etiology of their syncope have an abnormal SAECG, whereas only 27% who had no inducible ventricular tachycardia

Table 3

#### Clinical usefulness of SAECG in arrhythmia treatment

LVEF	<u>Holter</u>	SAECG	VT risk	Action
≥40%	benign	not indicated	low	no Rx
≥40%	complex VPBs	negative	low	no Rx
≥40%	complex VPBs	positive	uncertain	EPS, Rx if +
<40%	benign	negative	low	no Rx
<40%	complex VPBs	negative	uncertain	surveillance
				or EP, Rx if +
<40%	benign	positive	moderate	surveillance
				or EP, Rx if +
<40%	complex VPBs	positive	high	EP directed Rx

**Abbreviations:** LVEF = Left ventricular ejection fraction; benign versus complex = Lown criteria; no Rx = no anti-arrhythmic therapy (see text).

at electrophysiologic (EP) testing had an abnormal SAECG.<sup>12</sup> This yields a sensitivity of 83% and specificity of 91% in predicting inducible VT. Although SAECG is a better predictor of VT as the etiology of syncope than ambulatory monitoring, it does not replace the latter because the SAECG does not test for other cardiac etiologies for syncope, such as supraventricular tachycardia, sick sinus syndrome or advanced heart block.<sup>13,14</sup>

Non-sustained VT – People with complex ectopy, including non-sustained ventricular tachycardia (NSVT) on ECG monitoring but without late potentials on their SAECG are at very low risk of developing sustained VT or sudden death, whereas people with NSVT in the presence of abnormal SAECG are at much higher risk.<sup>15</sup> This is particularly true in the setting of inferior myocardial infarction.<sup>16</sup>

Certain people with highgrade ectopy do not require treatment, except as needed to suppress symptomatic extrasystoles.<sup>17</sup> Thus, with appropriate application of SAECG information, invasive EP testing may not be necessary in a select subset of people with high-grade VPBs on monitoring.<sup>18-21</sup> Likewise, the clinician may choose not to treat certain people with advanced ectopy on monitoring based on a negative SAECG, thus avoiding the significant risk or pro-arrhythmic effect associated with many anti-arrhythmic agents.<sup>22</sup>

Limitations of signal averaging and electrocardiogram

The presence of conduction system delay (bundle branch block or hemiblock) intrinsically prolongs the QRS duration and makes accurate interpretation difficult.<sup>23</sup> Frequency domain analysis is particularly useful in this group of patients.<sup>24</sup> Very little diagnostic confidence now can be placed in time domain analysis of the SAECG in patients with complete

bundle branch block configuration, despite the attempt to apply various correction factors.<sup>23</sup> False negative results seem most likely to be due to late potentials occurring in regions of the LV depolarized early and, consequently, lost in the QRS configuration.

Although not frequently encountered, VT due to enhanced automaticity will not be predicted by the SAECG because it tests only for the matrix needed to sustain re-entry VT.25 Finally, although the SAECG is capable of identifying people at high risk for ventricular arrhythmia, it does not provide any information regarding the success or failure of antiarrhythmic therapy.<sup>26,27</sup> In therapeutic concentrations, quinidine, procainamide, disopyramide, tocainide, mexiletine, B-blockers and calcium channel blockers do not predictably affect the SAECG. Encainide and flecainide prolong the QRS while amiodarone prolongs both the QRS and LAS.26,28

Any pharmaceutical intervention must be judged on its ability to suppress complex ectopy on continuous monitoring and exercise testing or on the lack of inducibility during programmed electrical stimulation.

Interestingly, surgical interventions such as myocardial revascularization or non-map directed LV aneurysmectomy will not alter the SAECG, but measures aimed at ablating or remov-

ing the regions of late potentials, for example, with map-directed cryosurgery or endocardial resection, are capable of normalizing the SAECG.<sup>27,29,30</sup>

Summary

The SAECG detects low-amplitude electrical activity from the ventricular myocardium, which persists after electrical systole on the standard 12-lead ECG. The presence of these late potentials correlates well with inducibility of VT during EP testing, reflecting the presence of a substrate permitting re-entry VT.18,21,31 An abnormal SAECG helps identify in a prospective fashion people at risk for development of sustained ventricular tachycardia and, to a lesser extent, ventricular fibrillation and sudden death.32 Conversely, a normal SAECG suggests that an individual may be at low risk for sustained ventricular tachycardia. Absence of late potentials does not free an individual from risk, however, as the presence of inducible ischemia or other trigger could alter the ventricular substrate.

Signal averaged electrocardiography, therefore, should not be evaluated as an isolated test but rather taken in context with the history, physical examination, Holter monitor, left ventricular ejection fraction and exercise electrocardiogram.<sup>33</sup> The rather low overall sensitivity of SAECG

makes its use most productive when applied to individual patients with other risk factors for VT/sudden death, including prior myocardial infarction, LV dysfunction and ventricular ectopy on monitoring.<sup>8,17</sup> A negative test in this setting confers a relatively good prognosis, whereas an abnormal SAECG makes further evaluation and treatment desirable (*Table 3*).

Recent studies suggest that EP testing for VT inducibility with subsequent EP-directed drug or non-pharmacologic therapy is the most effective means of treating these patients.<sup>34,35</sup>

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For a complete list of references, write indiana medicine, 3935 N. Meridian St., Indianapolis, IN 46208, or call (317) 925-7545 or 1-800-969-7545.



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# Processing surgically removed lymph nodes

Donald W. McCloskey, M.D. Ann T. Moriarty, M.D. Indianapolis

Before the advent of methods to evaluate cell surface markers and intracytoplasmic components, surgeons routinely placed surgically excised lymph nodes in 10% buffered formalin. The pathologist subsequently would render a diagnosis based on the evaluation of paraffin-embedded lymph nodes using light microscopy exclusively.

During the past decade, microscopic evaluation of lymph nodes by traditional hemotoxylin and eosin sections frequently has proven insufficient to provide a complete diagnosis. Two recent developments that serve as aids to lymph node diagnosis are tissue immunoperoxidase cytochemistry and immunologic marker studies performed on fluorescent-activated cell analyzers. Both of these technologies evaluate specific cell receptors or products and enable separation and identification of specific cell types.

This article summarizes the techniques and evaluations used during the last three years at Methodist Hospital of Indiana in the diagnosis of lymph nodes. These studies enable the pathologist to provide the primary care physician, surgeon, hematologist, oncologist and radiation therapist

## **Abstract**

Delicate lymph nodal tissue must be processed accurately and evaluated for proper patient management. In more than 125 cases at Methodist Hospital of Indiana, we devised a procedure that has allowed accurate diagnosis in 98% of cases. The pathologist's approach and the variety of studies necessary to confirm the diagnosis are presented, as well as important procedural considerations.

with maximum information to render a complete diagnosis and establish a prognosis for the patient.

Scheduling the procedure and processing the specimen The coordination among the pathologist, primary care physician, surgeon and hematologist/oncologist is absolutely essential. If good communication is absent, essential studies that should be performed may be omitted.

The mishandling of specimens usually occurs because of the numerous individuals involved in lymph node procurement. An intact, encapsulated fresh lymph node is the preferred specimen. The largest node in a chain should be submitted to the pathologist even though it may give less desirable cosmetic results and may be more difficult technically to obtain.

The surgeon and ancillary operating room personnel should never place lymph nodes into formalin. Instead, lymph nodes

should be kept moist by placing a sterile saline-soaked sponge in a sterile container during transportation. Lymphadenectomy, especially when carcinoma or lymphoma is suspected, should never be scheduled on weekends, late afternoons or evenings because of staffing problems. When emergency cases are unavoidable, special procedures can be performed. If the pathologist is informed of the procedure in advance, he can notify appropriate laboratory personnel and coordinate the procedures so all necessary tests are performed. When the pathologist is not warned, the necessary resources and personnel might not be assembled to yield the maximum information.

These studies, while primarily performed on lymph nodes, may be applied to any lymphoid tissue, such as spleen, thymus or peripheral blood. In fact, lymphomas have been described in virtually every organ of the body including gastrointestinal tract, nasopharynx, brain, lungs, skin,

spleen, liver and soft tissue.1,2

When the fresh lymph node is received by the pathologist, it is sectioned in a sterile manner. The most representative areas are sectioned at 1 mm to 2 mm, and a portion immediately is placed in 10% buffered formalin to be later post fixed in B5 (mecuric chloride solution) or placed directly in B5 fixative. While the frozen tissue may be sectioned and reviewed for rapid diagnosis, the principal reason for freezing the tissue is so immunologic markers by immunoperoxidase may be performed.

Touch preparations should be made from the lymph node as well as a small section taken for electron microscopy. While we do not recommend definitive frozen diagnosis of lymphoid neoplasms, the information gained may be useful in ruling out non-lymphoid lesions, such as metastatic carcinoma. Touch preparations may be just as helpful in excluding carcinomas. Infectious diseases may be suspected either by gross inspection of lymph node, review of the frozen sections, touch preparations or clinical history; a portion of the node that is still sterile may be taken for microbiologic studies. Another representative sample may be prepared for flow cytometry studies. Cells can be taken for chromosome studies if these are considered appropri-

Microbiologic studies, flow cytometric analysis and frozen section immunoperoxidase studies are impossible to perform once the tissue is fixed. Selected immunoperoxidase studies can be performed on paraffin sections but generally are considered inferior to frozen section.<sup>4</sup>

Table 1 outlines the above

## Table 1

## Procedure for processing lymphadenectomy samples

- 1. Schedule and coordinate procedure among pathologist, primary care physician, hematologist/oncologist and surgeon.
- 2. Sample part of lymph node for fixation in B5 or 10% formalin.
- 3. Make touch preparations of lymph node.
- Process tissues for frozen section rapid diagnosis and immunoperoxidase studies.
- 5. Preserve a small fragment of representative tissue in glutaraldehyde for possible electron microscopic analysis.
- Take microbiologic samples if indicated.
- 7. Take sample for chromosome analysis if indicated.
- 8. Obtain tissue for flow cytometric analysis.

## Table 2

## Application of tissue – immunoperoxidase studies

- 1. Leukocyte common antigen to differentiate lymphoid from non-lymphoid neoplasms.
- 2. Immunoglobulin heavy chains G, A and M and kappa and lambda light chains for distinction between reactive B-cell proliferation from B-cell lymphomas.
- 3. Pan B and pan T-cell markers differentiate T- and B-cell lymphoid proliferations.
- 4. If an epithelial neoplasm is suspected, epithelial markers such as epithelial membrane antigen, alpha lactalbumin, CEA, keratin and S100 protein may be performed.
- 5. CALLA lymphoid leukemias and subsets of B-cell lymphomas.
- 6. Alpha 1AT and lysozyme for histiocytic lesions.

procedure. *Tables 2, 3 and 4* represent how touch preparations, immunoperoxidase and flow cytometric markers may be applied to the diagnosis.

If weekend or late afternoon cases are unavoidable, a portion of the sample may be preserved in tissue transplant media, such as RPMI (Roswell Park Memorial Institute) at 4° C. The sample then can be retained for 12 to 24 hours before processing. Peripheral blood samples may be kept in

heparin at room temperature for approximately 12 hours before analysis.

## Illustrative case

A 58-year-old man presented with marked bilateral cervical lymphadenopathy and a white count greater than 200 x 10° cells per liter (200,000 cells per cubic mm). Review of the peripheral smear showed a predominance of myeloid elements with a left shift in the myeloid series. Blasts repre-

sented less than 5% of the cells present.

The patient had a palpable spleen. The clinician believed this degree of lymphadenopathy was unusual for what appeared to be a typical case of chronic myelogenous leukemia. After case discussion and planning, lymph nodes were removed and processed as described.

The clinical impression before lymphadenectomy was probable granulocytic sarcoma (extra-medullary blast crisis of chronic myelogenous leukemia). Examination of the tissue showed normal architecture effaced by diffuse sheets of large lymphoid appearing cells. This morphologic pattern was consistent with either a large cell lymphoma or granulo-

cytic sarcoma. Flow cytometric analysis including evaluation of myeloid and monocytic markers showed more than 80% of the cells reacting with the pan T-cell marker, Leu-9 (CD7).

Touch preparations showed large lymphoid appearing cells with prominent nuclei and moderately abundant cytoplasm without granules. Special stains for monocytes and myeloid cells, reviewed in *Table 4*, showed no cytoplasmic granules. A presumptive diagnosis was made of immunoblastic lymphoma, T-cell type (high grade in the international working formulation).

## Table 3

## Flow cytometry

- 1. HLA DR and antileukocyte markers to differentiate epithelial from non-epithelial neoplasms.
- 2. B- and T-cell markers, especially CD7 and CD2, to diagnose T-cell lymphomas and leukemias.
- 3. T-cell subsets, such as CD4 for helper cells and CD8 for suppressor cells, may be indicated for nodes where AIDS lymphadenopathy may be suspected.
- 4. Pan B-cell markers, including CD20 and CD19, as well as immunoglobulin heavy and light chains.
- CALLA (common acute lymphoblastic leukemia antigen [CD10]), which is not unique to lymphoblastic leukemia, may be seen in poorly differentiated lymphocytic, Burkitt's and some large cell lymphomas.
- 6. Monocytic and myeloid markers including CD15, MY7 and MY9.
- 7. DNA cell cycle analysis.

## Table 4

## Application of cytochemistry on touch preparations and/or paraffin sections

- 1. Wright stain or Wright Giemsa stain differentiates hematopoietic from non-hematologic disease.
- 2. Specific esterase and peroxidase stains for myeloid cells.
- 3. Non-specific esterase stains for monocytes.
- 4. PAS, MGP and ORO (methylgreen pyranin stains and oil red O) for Burkitt's lymphoma.
- 5. Stains for microorganisms including PAS and silver stains for fungi, gram stains for bacteria and acid fast stains for mycobacteria.
- 6. TRAP for hairy cell leukemia (tartrate resistant acid phosphatase).
- 7. ÎdT DNA polymerase found in some lymphoid malignancies.

## Discussion

At Methodist Hospital of Indiana in 1984, we processed approximately 125 lymph nodes when a hematologic neoplasm was suspected. The application of all or some of the above procedures enabled us to make a well-informed diagnosis in 98% of the cases. Consultants also were frequently unable to reach a definitive diagnosis in the 2% that were less obvious.

One may ask "is it necessary to perform all procedures in all cases?" The answer is yes. Due to the variety of technical considerations, it is sometimes not possible to perform all procedures in all cases. Duplication allows one to have backup data if some part of the study cannot be performed. In addition, some neoplasms are optimally evaluated by different technologies. Furthermore, if personnel always handle the specimen in the same way, mistakes are less likely to occur. When procedures are changed constantly and exceptions are made, necessary data that should be obtained have not been obtained. Performing some duplicate studies also serves as an important source of internal quality control to check one method

against another.

"Is the expense of performing the procedures worth it?" is another question frequently asked. Whatever procedures are necessary to reach the correct diagnosis, especially tests that will determine the patient's future course, including chemotherapy and prognosis, are worth the expense. The total cost of these procedures is usually less than \$1,000 and frequently less than \$750. On the average, this represents less than 5% of the patient's overall medical cost.

The proper course of action can be determined by the clinical history and possibly by touch preparations or frozen section diagnosis, so it may not be necessary to obtain chromosomes and microbiologic analysis in all cases. Frequently, while material is taken for electron microscopy,

complete electron microscopic analysis need not be performed. Lastly, there is a lack of concordance by pathologists in the diagnosis of lymphomas on morphologic grounds alone. These procedures offer an objective means to accurately classify lymphomas.5

Although this new technology is being used, newer techniques involving immunoglobulin gene rearrangements for T-cell receptor and B-cell immunoglobulin heavy and light chains are being applied to diagnose lymphoreticular neoplasms.<sup>6,7</sup> With these and other technologies, a consistently accurate approach to the diagnosis of lymphomas and leukemias can be developed.

With accurate diagnosis, the effects of treatment and the patient's prognosis can be evaluated

more clearly.

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## Look-alike and sound-alike drug names

Category:

Brand name: Generic name: Dosage forms: **CEFOTIAM** 

Cephalosporin Ceradon, Takeda Cefotiam Intravenous

**CEFOTETAN** 

**CAPASTAT** 

Category: Brand name: Generic name: Dosage forms:

Antituberculotic Capastat, Lilly Capreomycin

Powder for injection

Cephalosporin Cefotan, Stuart Cefotetan disodium Powder for injection

## **CAPSAICIN**

Neuralgia Zostrix, GenDerm Capsaicin Cream

## drug names

Benjamin Teplitsky, R. Ph. Brooklyn, N.Y.

Jook-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions.

Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such lookalike and sound-alike drug names can reduce potential errors.

# The role of the physician in identifying and treating abused women\_\_\_\_

## Diane B. Brashear, Ph.D. Indianapolis

Editor's note: This is the first article in a two-part series on identifying and treating abused women.

The incidence of physical abuse can only be estimated. Several studies indicate at least 1.5 million cases of domestic violence occur each year. About 93% of the victims are women.

One study at Yale University identified as battered 3.8% of women who came for surgical services and 3.4% of women who sought psychiatric services. It is estimated that 20% of all emergency room visits made by women are for inquiries about their abuse.

These estimates may be low because some victims initially give excuses for the cause of their injuries. Some women are embarrassed to admit abuse, especially if their physician knows their abuser. Fear of retaliation is a strong, commonly held fear, and many victims report that they concealed the actual cause of their injury.

Physicians and health care staff may reinforce this denial because they are less likely to ask about abuse, and as one physician remarked, "Even if I find out, what then?"

There have been few recent reported studies of medical intervention for and treatment of abused women. Most studies suggest that victims are referred for psychiatric care or given antianxiety medication. While cautioning that data from reported

## **Abstract**

The physician can identify abuse when probable or suspicious symptoms are presented. Interviewing and assessment techniques that help the patient disclose her abuse and make positive use of referral sources are discussed and illustrated. Identification of the abuse is the first step for most victims as they struggle toward social and psychological rehabilitation.

observations of battered women should be considered and understood as subjective, Bowker and Maurer<sup>2</sup> did report that when medical professionals were compared with other professional help, such as police or social service agencies, the medical profession was rated the least effective. Medical help was viewed most positively by women who were separated from their abusers. Perhaps these women saw effectiveness in terms of the cessation of their abuse, rather than the medical treatment they received. Bowker and Maurer<sup>2</sup> concluded that, despite the limitations of their data, many battered wives believed few physicians or nurses cared much about the danger of their situation.

One might argue that physicians may miss the abuse because the definition of abuse can be ambiguous. Abuse cannot be defined as only observable injury. Abuse is the use of physical force or inferred power with the intent to hurt the victim. It tends to occur between individuals who have major differences in power: husband to wife, parent to child.<sup>3</sup>

One study<sup>4</sup> reported that in 50% of reported child sexual abuse cases the mother also was

abused by her husband. In addition, the effects of the abuse are far greater than physical injury. Many victims of abuse report symptoms of depression, agitated hostility and marked somatization. Emotional abuse has a long-term debilitating impact on the victim.

Some populations of women may be more vulnerable to abuse. Hillard<sup>5</sup> screened 742 women in an obstetrical clinic and found 10.9% reported abuse. Of those reporting abuse, 29 of the 81 reported abuse during pregnancy, and 21% of these patients noted increased abuse during pregnancy. Starke et al6 noted that battered women seen in the emergency department were three times more likely to be pregnant than other women. Helton and Snodgrass<sup>7</sup> reported that, for some women, pregnancy does not protect them from their abuser; instead, abuse may escalate during pregnancy.

Elderly women initially battered by their husbands may continue to be abused by their children.<sup>8</sup> The elderly woman's abuse also may include physical neglect, financial exploitation and psychological abuse. The elderly abused woman characteristically is se-

verely impaired, older than 75 years, widowed and living with relatives. Physicians may see signs of abuse when the elderly patient becomes a medical problem that no longer can be handled by family or caretakers.

Clinical research has, in passing, identified teenage mothers as victims of abuse. An unintended pregnancy may alienate a young woman from parents, make her powerless and force her to live in a highly abusive situation. Caught in the legal entanglement of being a minor, she is less apt to receive support from agencies serving adult women. Her legal status may make it difficult or even impossible for children's agencies to provide service.

Often a conspiracy obstructs the identification of abusers. Physicians and health professionals may participate unwittingly in this conspiracy by their own denial and lack of awareness. Additionally, a physician, sensing professional inadequacy in treating this problem, may be less likely to deliberately develop identification strategies that enable the physician to determine which patients are abused.

**Identification strategies**Flitcraft<sup>9</sup> developed a classification of battered women, shown in *Table 1*.

McLeer and Anwar<sup>10</sup> reviewed emergency department records of female trauma patients, excluding those cases involving motor vehicle accidents and natural disasters, during a one-year period. Using the Flitcraft classification, they found 5.6% were positively battered, 10.9% were probably battered and 9.2% as suggestive. After the staff in the emergency department was trained in

identifying abused women, the percentage of women identified as positive for battering increased from 5.6% to 30%. McLeer and Anwar concluded that directing staff attention to the identification of battered women helped significantly.

A danger assessment tool was developed to help battered women assess their danger for homicide. This helped educate the victim about her risks, her patterns of abuse of herself and her children, and her vulnerability. The victim is asked to keep a calendar of abuse experiences. Because 1,000 women die each year of homicide by their husbands, nurses have found that this danger assessment is effective in helping the victim.

Chez<sup>12</sup> recommends that direct questions be used if abuse is suspected. Rounsaville and Weissman<sup>13</sup> reported that victims admitted injury by their spouse or boyfriend if they were asked directly.

Because there is a tendency to deny or cover up abuse, direct questioning may not always identify the abuse victim. Indirect detection may occur by observing behavior that confirms a physician's diagnosis of abuse. Responses of depression, physical injuries that she is unwilling to discuss or inappropriately deals with, extreme passivity, suicide attempts, fears and phobias may indicate that the physician's tentative diagnosis should be pursued.

Table 2 summarizes the signs and symptoms related to positive, probable or suggestive abuse.

Positive signs of abuse are most likely to be handled by the physician. When signs and symptoms are probable or suggestive, physicians may resist becoming involved because they feel inadequate. Furthermore, patients may be less likely to disclose their abuse with their physician but may talk more comfortably with another staff member. One threeperson obstetrics and gynecology practice in a small Midwestern town requires that all obstetrics patients see a staff counselor in their fourth month of pregnancy. In addition, the counselor works with gynecological patients who have chronic, unresolved prob-

These physicians have learned that their patients are more likely

## Table 1

## Flitcraft's classification of battered women

Positive: Injury was attributed to spouse or boyfriend at the

time of the event.

**Probable:** Medical records report patient was physically injured

but no personal etiology was noted.

Suggestive: The recorded etiology of the injury did not account

adequately for the injury.

**Negative:** Nothing in record of injury that would raise suspicion.

## Table 2

## Signs and symptoms of abuse

Positive: Overt signs of physical abuse; statement by victim

that she is physically, sexually or psychologically

abused.

Probable: Bruises or injuries that are not adequately or convinc-

ingly explained; fear of telling husband of her medical problems; admission that conflict does result in some physical contact; controlling and possessive husband,

such as demanding to be in examination room.

Suggestive: Frequent, vague, chronic unexplained complaints;

unusual concern about symptoms (infections, sexual response); references to unspecified marital problems; protection of husband; history of alcoholism or drug abuse; inconsistent use of psychotherapy; suicidal

attempts.

to talk openly with a counselor. There is more time, and the rules of patient-counselor relationship are perceived differently. Even patients without abuse problems report positively about this routine mental health checkup, perceiving that they are special and their emotional needs are included in the obstetrician's care.

These physicians and their staff would be a likely resource when problems do begin. Other practitioners have found that their patients develop a special relationship with a staff nurse. Allowing private time for this trusted staff person to talk with the patient may yield significant information.

If possible, early detection of the battering syndrome that directs the couple to seek assistance for marital communication problems is less threatening than a referral for abuse. When a potentially battered patient complains of vague physical problems, she also may refer to marital problems, such as loss of sexual desire or arousal. She may be overly protective of her husband by taking the blame for his anger or the marital problems. Husbands who are controlling, jealous, rude and demanding may be potential or actual abusers. The husband who demands to be in the examining room certainly signals extreme possessiveness that often is part of the abuse syndrome.

Because a poorly managed inquiry about abuse will only elicit a defensive response, Brekke³ recommends a technique called funneling. This approach has the interviewer direct the discussion to how conflict is handled. For example, the patient is asked, "How do you and your husband handle differences or disagreements?" Brekke then recommends that conflict be defined, such as whenever two people disagree. Furthermore, conflict also should be normalized, as "all

families and marriages have differences and disagreements." By leading into a discussion about conflict, the physician then can ask how the patient and her husband handle conflict. What are some of their conflicts and are there recent examples? Was there a time when things got out of control?

Brekke's funneling technique allows the subject of abuse to be introduced gradually. If this is the first time the patient discloses her abuse, the physician should be prepared for a highly emotional response. The patient may need to discuss this abuse in greater detail and be assured that her report will not be revealed to the abuser.  $\Box$ 

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# New federal law governs \_\_\_\_\_`patient dumping'\_\_\_\_

John W. Bowers, J.D. Fort Wayne, Ind.

In 1986, Congress passed the Emergency Medical Treatment and Active Labor Act<sup>1</sup> to deter "patient dumping," a practice among some physicians and hospitals. Patient dumping occurs when a hospital sends a patient to another facility or turns the patient away because of inability to pay for medical services.

This little-known federal law

(the enforcement provisions became effective July 1, 1988) makes it illegal to transfer any patient who has not been stabilized, unless and until the attending physician certifies, in writing, based on the information available at the time, that the medi-

cal benefits reasonably expected from treatment at another facility outweigh the increased risks to the patient's medical condition at the present site. The physician must get permission from the receiving hospital to make the transfer and must make sure the receiving facility will have available space and qualified personnel to treat the patient. In addition, the physician must send the patient's medical records to the appropriate medical personnel at the receiving facility.

If any of these requirements are not met, the transferring facility and the responsible physician can be sued by the patient up to \$50,000 for each violation of this federal law.

Last year witnessed two im-

portant cases interpreting this law. In *Reid v. Indianapolis Osteopathic Medical Hospital, Inc.,*<sup>2</sup> Mr. and Mrs. Reid were involved in a serious auto accident. Mrs. Reid was brought to Westview Hospital. Following examination and treatment by certain physicians, arrangements were made to transfer her to Methodist Hospital in Indianapolis.

Sometime after her admittance to Methodist Hospital, she died. Her estate sued Westview, claiming that it failed to provide her (\$100,000) recoverable for personal injury from a health care provider is incorporated into the federal statute. Accordingly, the court refused to dismiss the lawsuit but limited the amount of damages.

Several weeks later, the Department of Health and Human Services (HHS) in the case of *The Inspector General v. Michael L. Burditt, M.D.,*<sup>5</sup> imposed a \$20,000 fine on a Texas doctor who ordered an indigent woman in active labor transferred to another hospital because he was worried

about the possibility of a high-risk delivery and a malpractice suit. The Administrative Law Judge (ALJ) hearing the case found that Dr. Burditt falsely certified that the benefits of the transfer outweighed

the risks. HHS intends to seek enforcement of this decision in the District of Columbia Federal Circuit Court of Appeals.

Patient dumping occurs
when a hospital sends a patient
to another facility or turns the patient away
because of inability to pay for
medical services.

with appropriate medical care and stabilizing treatment and that she was transferred to Methodist Hospital before her condition was stabilized. The plaintiff sought damages in excess of the \$100,000 maximum available under state law "for an occurrence of malpractice.<sup>3</sup>" The hospital argued that the case should be dismissed because the plaintiff did not file the proposed complaint with the medical review panel, pursuant to the Indiana Medical Malpractice Act.<sup>4</sup>

A federal district court in Indianapolis found that a plaintiff does not have to present a proposed claim to the medical review panel before filing a lawsuit. However, the court ruled that the state law maximum amount

## Observations

 Patients whose injuries are aggravated as a result of being dumped may sue the sending hospital and the attending physician in a federal district court on a "strict liability" basis. The term strict liability, as applied by the courts, signifies a standard of culpability for the breach of a public policy, here medical treatment. The liability is strict because it attaches, even though in this case the doctor arguably exercised all possible care in the preparation and transfer of the patient. Financial liability is im-

posed because a judge finds that the risks of transfer outweigh keeping the patient in the original facility.

• In Indiana, potential plaintiffs who are "dumped" may avoid the state medical review panel procedure (although the statutory \$100,000 limit remains) by suing in a federal district court.

• The *Burditt* case establishes that a doctor performing work in an emergency department as a condition of maintaining hospital staff privileges is "employed by" or is "under contract with" the hospital by reason of this law, and, as such, it removes liability defenses available to the hospital for the actions of its staff.

 Another disturbing development is that the Burditt ALJ summarily dismissed the doctor's diagnosis/defense of the woman's

condition.

## Recommendations

1) While the statute addresses the

practice of patient dumping, the attending physician should not transfer any patient whose condition is not stabilized, unless that physician certifies, in writing, that the benefits of the transfer outweigh the risks.

2) Before the actual transfer, the physician should personally contact the receiving hospital to arrange the transfer and should ensure that the medical records are delivered simultaneously with the patient at the receiving hospi-

3) The physician should ensure that the transportation equipment and personnel accompanying the patient are adequate to handle any complications or medical developments that are foreseeable during the transportation itself.

4) All medical staff, including nurses, should be briefed thoroughly on the coverage and liability of this act, and physicians must review and certify in writing on forms detailing the patient's present condition that the contemplated transfer will be beneficial in lieu of the medical risks.

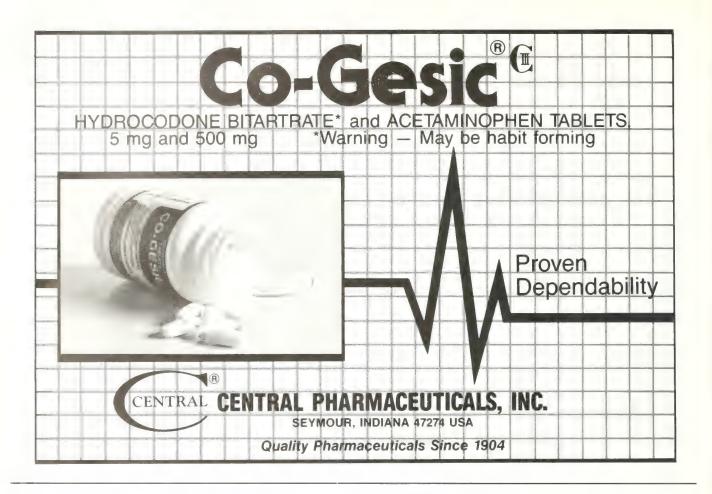
Unfortunately, Indiana physicians can expect medical malpractice plaintiff lawyers to use this new statute to avoid the procedural requirements of the medical review panel.

The author is an associate attorney practicing labor and employment law on behalf of management with Beers, Mallers, Backs & Salin, a Fort Wayne law firm.

## References

- 1. 42 U.S.C. §1395dd.
- 2. 709 F. Supp 853 (S.D. Ind. 1989). 3. I.C. 16-9.5-2-2(b). 4. I.C. 16-9.5-9-2.

- 5. Department of Health and Human Services, Departmental Appeals Board, Civil Remedies Division, Docket No. C-42 (July 28, 1989).





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**CAPSULE COMMENTS** 

## MENIERE'S DISEASE

What is it?

Inner Ear Disorder

Causes?

Unknown

Symptoms?

Attacks of Vertigo, Unilateral Hearing Loss, Roaring Tinnitus, Ear Fullness, Unilateral

Weakness on ENG, Abnormal ECOG.

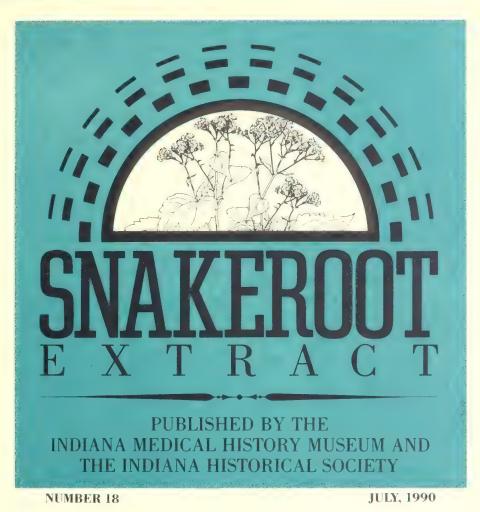
Treatment?

Sodium and Caffeine Restriction; Stress Reduction; Diuretics, Vitamins, Vasodilators;

Surgery for Hearing Conservation and Labyrinthectomy.

For more assistance with your patient's ear needs contact The Ear Institute of Indiana

Otology and Neurotology • Audiology • Vestibular Laboratory • Hearing Aid Dispensing
 • Additional location: 5506 East 16th Street, Suite 12



## SOCIETY RECEIVES EMBALMER'S DAYBOOK AND PAPERS

Rudolf K. Haerle of Indianapolis recently donated the papers and daybook of Dr. Daniel H. Prunk (1829-1923) to the Indiana Historical Society Library. Prunk, who practiced medicine and surgery in Indiana and Illinois during the nineteenth century, served as an embalmer during the Civil War. This collection reveals much about early embalming techniques and the life of an embalming surgeon.

The practice of embalming dates to ancient Egypt. Egyptians removed the body's internal organs (except for the heart and brain), filled the body's cavities with myrrh and other spices, treated it with salt and oils, and wrapped it in cloths. During the fifteenth century, physicians abandoned the Egyptian desiccation techniques and substituted venous

injections. In preparing his anatomical drawings, Leonardo da Vinci (1452-1519) used venous injection to preserve the bodies. Sailors perceived waste in the manner in which corpses of important British leaders came home from battlefields. After Andrew Jackson's forces

(continued on Page 4)

## MUSEUM RECEIVES GRANT TO CATALOG BOOKS

The Indiana Medical History Museum recently received a \$2,500 Indiana Heritage Research Grant from the Indiana Humanities Council and the Indiana Historical Society. These grants are designed to promote state and local history research projects. The musuem will use the grant to catalog and conserve its latenineteenth-century medical library.

The museum is housed in the historic Old Pathology Building on the grounds of Central State Hospital. When the building opened in 1896, it was a state-of-the-art research facility. The building also had a 500-volume medical library. From the date of opening to the late 1920s, the hospital added approximately 1,000 volumes to this library. This library is unique since it is an actual late-nineteenth-early-twentieth century medical library. At present 358 titles of the library are cataloged. The project entails cataloging 500 more titles.

Upon the completion of the cataloging project in the fall, 1990, the museum will open this collection to the public. As part of this opening, the museum will sponsor a lecture at the museum. Dr. John Cornell, assistant professor of history at Butler University, will present a lecture entitled, "The Birth of the Clinic: Psychiatric Reforms around 1900." In his lecture, he will note how his research was aided by the use of a similar collection of books. The exact date of the program will be announced.

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An entry in Dr. Daniel Prunk's daybook denoting his charges for embalming and a metallic burial case. In the collection of the Indiana Historical Society.

## EXHIBIT TRACES PUBLIC RESPONSE TO VENEREAL DISEASE

In October 1987 the United States Public Health Service Center for Disease Control launched a public education campaign in response to the AIDS epidemic. As part of this campaign, the government mailed a pamphlet, "Understanding AIDS," to 107 million households. Although the campaign had its critics, public health experts viewed education as the best means of prevention and control of the disease. AIDS, however, has not been the first sexually transmitted disease which has posed a national health crisis. In the late nineteenth century, the increasing cases of two other venereal diseases — syphilis and gonorrhea — alarmed physicians and social reformers. Societal mores dictated the nature of the public response to these diseases.

In 1837, French physician Phillipe Ricord not only proved that syphilis and gonorrhea were two separate diseases, but also identified three separate stages of syphilis. Later research showed that syphilis caused a variety of secondary diseases including heart problems, insanity, paralysis, and blindness. In the 1870s, physicians discovered that gonorrhea could result in arthritis, meningitis, pericarditis, peritonitis, and sterility. As with AIDS, the medical profession could offer the public no reliable cures for the diseases.



A World War II poster warning troops about venereal disease. Taken from Allen M. Brandt, No Magic Bullet: A Social History of Venereal Disease in the United States Since 1880 (New York, 1985).

Yet, despite the dangers of syphilis and gonorrhea, the public remained virtually ignorant about them. In Victorian society, discussions of sex and venereal disease were taboo, and these afflictions fell under a "veil of secrecy." The respectable press refused to print anything on the subject; the words syphilis and gonorrhea were considered obscene.

A number of physicians and social reformers feared that these diseases would destroy the American family. In 1904, Edward Bok, the editor of the *Ladies' Home Journal*, broke the "conspiracy of silence" and ran a series of articles about the dangers of venereal disease. The veil of secrecy began to rise.

As part of their campaign to control venereal disease, reformers and physicians tried to end prostitution by establishing vice commissions. Others, mostly physicians, believed that prostitution could never be entirely eliminated. Therefore, they urged that it be legalized and that prostitutes be registered and inspected regularly. In 1912, Indiana physicians joined their colleagues in other states to urge the legalization of prostitution. The public reacted so negatively that the idea never materialized.

In 1905, Fritz Schaudinn and Eric Hoffmann identified the bacteria responsible for syphilis — the Spirochaeta pallida. The next year August Wasserman, Albert Neisser, and Carl Bruck developed a test for syphilis. In 1909, Paul Ehrlich discovered salvarsan, a compound of arsenic and the first effective treatment for syphilis. However, the treatment was painful, and it occasionally resulted in death. In 1912, Ehrlich introduced a less toxic, and also less effective, version (called Neosalvarsan). Prior to the introduction of penicillin, the only other regimen available for syphilis was the malaria treatment. In the 1920s, Austrian physician Julius Wagner von Jaeregg noted that patients suffering from central nervous system syphilis showed marked improvement after contracting malaria.

Many reformers believed that with a cure for syphilis, the disease could be eliminated. Some reformers demanded that physicians report the incidences of the disease to state officials. In 1911, California became the first state to require the reporting of syphilis cases. In 1918, Indiana passed a similar law. Yet, to the chagrin of many reformers, silence regarding the disease persisted.

On the eve of America's entry into World War I, reformers worried about the high rate of venereal cases at United States military training camps. If venereal disease were not controlled, the secretary of war feared that there would be a national crisis, which would seriously hinder the nation's ability to fight a war. Thus, the War Department established the

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Snakeroot Extract is a joint publication of the Indiana Historical Society's Medical History Committee (315 West Ohio Street, Indianapolis, Indiana 46202) and the Indiana Medical History Museum (Old Pathology Building, 3000 West Washington Street, Indianapolis, Indiana 46222). The newsletter is mailed to members of both the committee and the museum.

Submit all items for publication in the newsletter and inquiries about membership information to Katherine Mandusic McDonell, Managing Editor, c/o Indiana Historical Society, 315 West Ohio Street, Indianapolis, Indiana 46202.

Snakeroot Extract derives its name from the white snakeroot, a plant that is significant in Indiana medical history. For years, a mysterious disease called milk sickness plagued early Hoosiers. There were many theories as to the disease's cause, but the actual cause remained unknown until the 1920s. At that time, the disease was traced to the white snakeroot plant or, rather, to the consumption of milk from cows that had eaten it. The plant contains the poison tremetol.

(continued on Page 3)

## EXHIBIT TRACES RESPONSE TO VENEREAL DISEASE

(continued from Page 2)

Commission on Training Camp Activities (CTCA) to create healthy diversions for the troops. This organization also undertook an educational campaign which included the distribution of pamphlets among the troops and the production of educational films. The Commission stressed the servicemen's patriotic duty to remain free from venereal disease.

Unfortunately, the CTCA's efforts did not end the high incidence of venereal disease. Since many men had contracted venereal disease prior to admission, the CTCA launched a national public health campaign in which sexual morality, venereal disease, and prostitution were discussed publicly. Newspapers printed full-scale accounts of the disease.

Controlling venereal disease on the home front was relatively easy compared to controlling it among troops abroad. CTCA officials worried about the American Expeditionary Force, stationed in France where sexual mores differed from those prevailing in the United States. Prostitution was regulated in France. From the beginning, the American army noted that it would not tolerate venereal disease in the American Expeditionary Force. The army designated French houses of prostitution out of bounds for American troops and limited men's liberties and leisure hours. Army officials reluctantly admitted that they could not completely control the behavior of the troops and established chemical prophylaxis stations on the bases. Because of these measures, the American Expeditionary Force in France earned the reputation of the "cleanest group of young men ever brought together outside a monastery." Overall, however, venereal disease remained the most common disease next to influenza.

After the war, openness about venereal disease ended, and once

more syphilis and gonorrhea fell under a veil of secrecy. The government eliminated funding for venereal disease control; the educational films produced during the war were declared obscene. In 1930, a survey revealed that one in ten Americans had venereal disease, resulting in high costs to taxpayers.

In 1936, Thomas Parran, the United States Surgeon General, declared elimination of venereal disease to be the nation's number one public health priority. He published an article about syphilis in Reader's Digest. Parran's program involved the identification of the disease, prompt therapy, identifying all contacts with syphilitics, mandatory blood tests before marriage, and public education. In 1938, Congress passed the National Venereal Disease Control Act, which identified the disease as a national priority. The Indiana State Medical Association wholeheartedly backed the national public health campaign directed at venereal disease. Its president, Herman M. Baker, noted: "These germs do not know state lines and you have simply got to handle the thing as a problem in national scope.

Parran urged abstinence, not prophylaxis. That emphasis changed, however, as America entered World War II. The campaign against venereal disease closely resembled that of the previous war. Yet, as medical officers realized that the public education campaign and diversions for troops were not effective in promoting abstinence, they turned to the use of chemical prophylaxis and condoms. In 1943, penicillin became available as an effective remedy in treating gonorrhea and syphilis, and by the next year it was widely used for the treatment of venereal disease. The public education campaign, as well as the discovery of penicillin, resulted in a dramatic decline in the cases of syphilis and gonorrhea.

NOTE: On 20 July 1990, the Indiana Medical History Museum will open an exhibit entitled "Lifting the Veil of Secrecy: The Public Response to AIDS in Historical Perspective."

NOTICE: The Indiana Medical History Museum announces the opening of its Vermont Street entrance. Beginning 6 July 1990, visitors can approach the museum through the entrance located at 3045 West Vermont Street. Museum hours are on Wednesday and Friday, 1 p.m. - 4 p.m.



Educational pamphlets warning about the dangers of venereal disease, ca. late 1920s - 1930s. In the collection of the Indiana Medical History Museum.

## SOCIETY RECEIVES DAYBOOK

(continued from Page 1)

defeated the British at New Orleans in 1815, for example, General Edward Packenham's body traveled to London "in a casket of rum." One contemporary reported, "What a sight for his wife... who had hoped to be Governess of Louisiana."

Modern embalming, or arterial embalming, depended upon the discovery of the blood's circulation in 1628 by William Harvey. The embalming process involves the draining of the blood and the injection of fluid into the arteries and body's cavities. American physicians did not utilize arterial embalming until shortly before the Civil War.

In early America, individuals saw little need to preserve the bodies of loved ones. As the nation grew and Americans moved westward, however, many families requested that deceased family members be returned to the family burial ground. Preservation of bodies during transport became desirable. Until shortly before the

## HEADQUARTERS FOR EMBALMING.

## Dr. PRUNK

HAS OPENED AN ESTABLISHMENT IN NASH-

## EMBALMING THE DEAD.

On Cherry Street, 5 doors south of the Post Office. He will attend to disinterring and formering radios from this and all points South. A good associanent of

## Metallio Cases and Zino Coffins

On hand. Branch Offices at Chattanooga, Tenn., and Huntsville, Ala. D. H. PRUNK, M. D.

Advertisement for Dr. Daniel Prunk's embalming services. Taken from Indianapolis Journal, 18 April 1865.

Civil War, rudimentary refrigeration methods and air-tight metallic coffins (made of zinc or iron) provided for the temporary preservation. In the late 1850s, physicians introduced chemical injection to America as a means of preserving corpses.

Because of the long distance that bodies had to be transported during the Civil War, embalming became a necessity. Embalming remained the domain of physicians, and some doctors viewed the specialty as a lucrative enterprise. The War Department issued contracts to physicians and surgeons to practice embalming. Not until the end of the war did the government require the licensing of embalmers.

Dr. Daniel H. Prunk entered the war in September 1861 as an assistant surgeon in the Nineteenth Indiana Voluntary Infantry. Because of illness in his family. Prunk left the army twice and returned in 1863 to serve as acting assistant surgeon at the Second Division Hospital in Nashville. Tennessee. On 24 December 1863. the United States government gave Prunk permission to embalm the dead at Chattanooga. Prunk found the practice of embalming profitable and during the war established embalming practices in a number of southern cities. Prunk's standard charge for embalming was twenty dollars.

At the end of the Civil War, Prunk gave up his embalming work and returned to Indianapolis to practice medicine until his death in 1923. After the Civil War, embalming became common; lay people performed the task. By the end of the century, mortuary science schools taught the art throughout the country.



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# How accessible are your medical records?\_

Linda C. Taylor Barbara A. Killila Indianapolis

Mrs. Smith requests a copy of her medical records as well as a copy of records for each of her children and her husband. She said they were moving to another city and will need their records when they locate a new physician. Do you deny or comply with her request?

You receive a request for a copy of Mr. Jones' records from ACE Insurance Co. It states the records are needed to verify a bill from your office. The authorization Mr. Jones signed two years ago when he purchased his health plan is included in the letter. Do you deny or comply with the request?

Indiana Code 16-4-8 can help answer these questions. It states the provider (i.e., physician) owns the health record, but the patient has the right to review and/or copy his or her medical records.

The release of medical information can be a complicated issue. When releasing records, remember there are two categories of requests: 1) continuity of care; and 2) non-continuity of care (i.e., billing, legal, etc.).

Many requests that providers receive fall into category two. Insurance companies, lawyers and

Insurance companies, lawyers and patients will request copies of records. These requestors must use one of the methods outlined in *Table 1* to gain legal access to any

medical records.

Indiana Code 16-4-8 provides criteria to verify the validity of a request for medical records (*Table* 2). Once the request has been

checked for compliance with these requirements, you may proceed with the release of the information from the medical record.

All of the criteria listed in Table 2 must be met to release records. The second criterion presents the most difficult problem for health care providers when releasing records. Who signs the authorization? The patient could be deceased or an emancipated minor, in a mental health or drug rehabilitation center or a child of divorced parents. Who then signs the authorization?

The typical patient authorizing a release of records is a competent individual 18 years or older. However, this may not always be the case. The following are some exceptions to the rule:

• The emancipated minor is someone who is at least 14 years old but younger than 18, self-supporting and living away from parents, managing his or her own affairs or is or has been married, or is in the Armed Services, or is otherwise defined by law. If the patient in question claims to be an emancipated minor, ask the patient to provide proof of emancipation.

• The legal guardian, foster parent or custodial parent should be willing to provide a copy of the documents establishing his or her legal right to act on behalf of the child in requesting the records. Divorce papers should state that the custodial parent is responsible for the welfare of the child, including health care; therefore, it is wise to have the custodial parent sign the authorization.

 The incompetent patient should have a legal guardian.
 The requestor should be prepared to provide you with a copy of the documents establishing his or her legal right to act on behalf of the patient in obtaining records.

• The deceased patient should have a personal representative named to handle the affairs of his or her estate. Copies of the documents establishing his or her right to act on behalf of the estate should be provided to your office. If the patient does not have a personal representative, the next of kin, in the following order of priority, can authorize release of records: spouse, adult child, adult parent, brother or sister, niece or nephew, uncle or aunt.

 The power of attorney requestor, like any other requestor, must provide the documents establishing his or her right to act

on behalf of the patient.

Mental health/substance abuse records are an especially delicate area of confidential record keeping. These records are subject to strict federal regulations concerning release of information requests. These records cannot be released without the patient's written authorization. The only way records may be released without the patient's written authorization is by a court order.

What if a request for medical records is made by telephone?

It is not advisable to release information over the telephone. Advise the requestor that the request must be in writing and accompanied by the written authorization of the patient. If the request is from another physician treating the patient in an emergency situation, verify that the call is legitimate by asking the caller for his or her name, reason for requesting the information and a

number where you can reach him or her after researching the request. Identify a staff member who will reply to these emergency calls. It is always best to obtain the patient's authorization before releasing the records.

To properly process the many requests for records, policies and procedures for your office staff should be established in accordance with Indiana law. These policies should include the retention practices of medical records in your office. Indiana Code 16-48-12 states that a provider shall maintain records for a period of seven years. The record can be maintained in the original form or on microfilm.

Technology has added a new twist to record keeping – the fax record. Is this legal? To date, there are no laws prohibiting the use of fax copies in the medical record. Watch for further developments in this area.

Because releasing medical records is a costly procedure, you may ask "Can I charge for copying records?" The answer is yes. Indiana Code 16-4-8 states the provider can charge the actual cost for reproducing the medical record. If the patient says he or she is unable to pay or the record is quite large, you may ask the requestor to make an appointment to review the record with one of your staff members. This allows the requestor to decide if he or she can pay for only the pages needed at that time.

Knowledge of the law guarantees the patient access to his or her records and helps your staff comply with requests for copies of records. Complying with the law, in turn, may lead to strengthening communication between the patient and the physician.

Ms. Taylor is a consultant with MRT & C, Ltd. Ms. Killila is director of education and risk management, Physicians Insurance Company of Indiana.

For inquiries concerning this article, call Ms. Taylor, (317) 763-6647, or Ms. Killila, 1-800-284-7424.

For inquiries concerning the Indiana Medical Record Association Release of Information Guide, call Kyle Gustin, chairman of Release of Information Committee, (317) 274-0961.

### References

- 1. Indiana Code 16-4-8.
- 2. Release of Information Guide, Indiana Medical Records Association.

## Table 1

## Methods of requesting health records

- 1. **Patient or legal representative** a written authorization has been completed and signed by the patient or legal representative authorizing the provider to release the medical information.
- 2. **Subpoena duces tecum** a subpoena has been filed with the court requiring the provider to appear in court and bring the requested records. This document is issued in accordance with Trial Rule 45.
- 3. **Non-party production of records** the provider is a non-party to the court action but possesses health records that may have a bearing on the case. This document is issued in accordance with Trial Rule 34.
- 4. **Court order** this document has been issued by the judge and requires the presence of the provider and the records.

## Table 2

## Criteria for authorization

- 1. Authorization should be written.
- 2. Authorization should be signed by the patient or his or her authorized representative (i.e., the parent of a minor or the court-appointed guardian of an incompetent individual).
- 3. Signature must be dated and current (within 60 days).
- Authorization should indicate the time period of medical care for which information is to be released and any limitations about the information that may be released.
- 5. Authorization should indicate to whom the information is to be released (including full name and address).

**EXCEPTION:** Insurance company requests are valid for two years from the date of application for insurance. The only information required on the release form is the following: 1) name of insured; 2) date consent is granted; 3) name of company to which consent is given to receive the information; and 4) general nature of the information that may be secured by the use of the consent.

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# Digest of health and medical laws

## 1990 Indiana General Assembly

The 1990 session of the Indiana General Assembly has been described by many veterans of the legislative process as one of the most politically charged and frustrating sessions in recent history. A political tie in the House of Representatives, the narrowest possible Republican majority in the Senate (26-24) and an important reapportionment election looming in the near future created a sometimes explosive political situation. The session was even more hectic because legislators introduced 1,025 bills, a record for a short session.

This digest has been published to provide you with the most up-to-date information about new laws that may affect your practice. The summaries are brief and highlight principal changes that are most relevant to health care. Effective dates of legislation are included with each summary, so you know when these laws will affect you. An index appears at the end of this document.

If you have questions or comments, contact the ISMA's Government Relations staff at 1-800-969-7545 or (317) 925-7545.

Michael D. Abrams Chief lobbyist

Duane M. Schaefer Legislative assistant

Jean M. Terry Legislative assistant

## House enrolled acts

## HEA 1073

→ Extends the income tax credit for scientific research through the earlier of Dec. 31, 1991, or one year after the expiration or repeal of the federal research expense tax credit;

provides that the amount of the credit is 5% of the research expenses for research conducted in Indi-

ana;

provides that the shareholders or partners of a pass-through entity may claim a research expense tax credit if the pass-through entity is entitled to claim the credit but does not have state income tax liability to which the credit may be applied.

→ This act retroactively took effect Jan. 1, 1989.

## HEA 1069

- → Provides that a person who recklessly keeps for sale, offers for sale or delivers an instrument, a device or other object that is primarily used as drug paraphernalia commits a Class A misdemeanor. It is a Class D felony if the person has a similar prior conviction;
- provides that a person who recklessly possesses a raw material, an instrument, a device or other object that is to be used primarily for introducing into the person's body a controlled substance, testing the strength of a controlled substance or enhancing the effect of a controlled substance commits a Class A misdemeanor. However, it is a Class D felony if the person has a similar prior conviction.
  - ➡ This act takes effect July 1, 1990.

## HEA 1093

→ Allows for the interception of telephonic or telegraphic communications relevant to the investigation or prosecution of felonies pertaining to the Indiana controlled substance statute;

 establishes a procedure whereby a prosecuting attorney may submit an application to a superior or circuit court for a warrant authorizing the interception

of telephonic or telegraphic communications;

⇒ provides that only the state police department may install, operate or monitor any equipment used for the purpose of intercepting a telephonic or telegraphic communication;

➡ provides that a person whose communications are intercepted, disclosed or used illegally has a civil cause of action and is entitled to recover damages.

This act takes effect July 1, 1990.

## **HEA 1112**

→ Reduces the cap on the rate for payment for room and board assistance from 55% to 50% of the average daily rate of reimbursement paid under Medicaid for intermediate care facilities;

- provides that an individual suffering from mental illness may be eligible for residential care assistance and may be admitted to a home providing residential care:
- requires that a comprehensive care plan be developed within 30 days after an individual with mental illness has been admitted to a home providing residential care;
- requires the comprehensive plan to include the consideration of the following: psychosocial rehabilitation services provided within the community; a comprehensive range of activities to meet multiple levels of need, including opportunities for progression into less restrictive and more independent living arrangements; and appropriate alternate placement if the individual's needs cannot be met by the facility;

requires the health facilities council in cooperation with the department of mental health and the department of public welfare to adopt rules to govern residential care and the comprehensive care plans provided to individuals suffering from mental illness;

provides that an individual with mental illness may not be placed in an accredited Christian Science facility unless the facility is licensed under the health

facilities statute (IC 16-10-4);

→ provides that restrictive covenants that permit the residential use of property but prohibit the use of that property as a children's home are void.

→ This act takes effect July 1, 1990.

## **HEA 1148**

Expands the membership of the Alzheimer's disease and related dementia task force to include two members of the House of Representatives and two members of the Senate; not more than two may be from the same political party.

→ This act takes effect July 1, 1990.

## **HEA 1157**

The state supplemental budget bill, this act provides for adjustments to the budget adopted during the 1989 session. Appropriations enacted in HEA 1157 are in addition to those adopted last session:

State Drug Free Communities Fund\$1,475,000
Health Professions Bureau\$151,027
Mental Health Institutional
Contingency Fund\$1,000,000
Comprehensive Community
Mental Health Centers\$1,339,812
Dept. Mental Health (DMH):
Work Program for the
Chronically Mentally Ill\$23,448
DMH: Community Mental
Retardation and Developmental
Centers Day Programs\$1,181,140

DMH: Supported employment\$41,423
DMH: Diagnosis and evaluation\$37,215
DMH: Residential Services
for the Mentally III\$512,500
DMH: Residential Services for
Developmentally Disabled Persons\$295,473
State Board of Health (ISBH):
To defray the cost of measles
vaccine purchased in 1989\$200,000
ISBH: Enhance funding for the
Indiana Poison Center at
Methodist Hospital in Indianapolis\$318,863
ISBH: Maternal and Child Health Grants \$400,000
ISBH: Maternity Home Grants\$75,000
ISBH: Newborn Screening Program\$200,000
Dept. of Public Welfare Medicaid\$32,959,063
Dept. of Human Services (DHS):
AIDS Community Programs\$100,000
DHS: Alzheimer's Disease Task Force\$100,000
DHS: Adult Day Care in Richmond, Ind\$50,000
Budget Agency: Home
Health Care (CHOICE)\$10,000,000
IUPUI, Health Divisions: Medical
Education – Clinical Experience\$1,000,000

## HEA 1159

→ Establishes the state drug free communities fund to promote comprehensive alcohol and drug abuse prevention initiatives by supplementing state and federal funding for treatment, education, prevention and criminal justice efforts;

➡ establishes the county drug free community fund in each county to promote comprehensive local alcohol and drug abuse prevention initiatives by supplementing local funding for treatment, education, prevention and criminal justice efforts;

→ provides that revenues for these funds come from increased drug abuse, prosecution, interdiction and corrections fees and increased alcohol and drug countermeasures fees;

→ raises the drug abuse, prosecution, interdiction and corrections fees collected in all criminal actions from \$100 to \$200;

→ raises the alcohol and drug countermeasures fees collected in drunk driving cases from \$20 to \$200;

→ repeals the local law enforcement drug abuse prevention fund;

transfers all money in the local law enforcement drug abuse prevention fund to the state drug free communities fund.

→ This act takes effect July 1, 1990.

## HEA 1170

→ Defines mental health records as any recorded or unrecorded information concerning the diagnosis, treatment or prognosis of a patient receiving mental health services or developmental disability training;

→ allows a provider to withhold information from a patient if a physician determines that the information requested will be detrimental to the physical or mental health of the patient or is likely to cause the patient to harm the patient or another person;

establishes a procedure whereby a court may order the release of a patient's mental health record in emergency child in need of services (CHINS) cases without the patient's written consent at the conclusion of a hearing if the court finds, by a preponderance of the evidence, that other reasonable methods of obtaining the information are not available or would not be effective and the need for disclosure in the best interest of the child outweighs the potential harm to the patient;

→ requires the court, when weighing the potential harm to the patient, to consider the impact of disclosure on the provider-patient privilege and the patient's rehabilitative process;

establishes exemptions as to when a mental health record may be disclosed without the patient's consent.

This act takes effect July 1, 1990.

## HEA 1171

→ Increases payments to hospitals that serve a "significantly disproportionate number of low-income patients" (Wishard Hospital of Indianapolis and Gary Methodist Hospital) as allowed by federal law;

removes the requirement that the director of a health and hospital care corporation (Wishard Hospital of Indianapolis) be a physician and instead requires that the director be qualified in the management of hospitals and skilled in health care financing;

prohibits physicians who do not have privileges at Wishard Hospital from treating patients admitted to Wishard.

➡ This act takes effect July 1, 1990.

## **HEA 1188**

→ Allows people certified to provide emergency medical care to use an automatic or semi-automatic defibrillator if the defibrillator is used in accordance with training procedures established by the Indiana emergency medical services commission;

allows a person certified to provide emergency medical services to renew an expired certificate by completing continuing education requirements;

defines "emergency patient" as an individual who is acutely ill, injured, incapacitated or helpless and who requires emergency medical services;

→ exempts motor vehicles certified as ambulances by the Indiana emergency medical services commission from Indiana's motor carrier regulations.

➡ This act takes effect July 1, 1990.

## HEA 1192

Requires law enforcement agencies to establish a protective order depository that includes protective

orders issued to prevent abuse of a person;

⇒ specifies that the clerk of a court that issues a protective order requiring a person to refrain from abusing, harassing or disturbing a petitioner must provide a copy of the order to each party, the sheriff and law enforcement agency;

increases the membership of the domestic violence prevention and treatment council from three to

seven;

increases from \$50,000 to \$100,000 the amount the interdepartmental board for the coordination of human service programs may grant to any single domestic violence and prevention treatment center;

requires each county law enforcement agency, city or town law enforcement agency and the state police department to provide each officer continuing education concerning various aspects of abuse;

⇒ allows a person to petition any court for a temporary protective order if that person, a member of the petitioner's household or property has been abused or threatened with abuse by another;

- allows the judge of the court in which a temporary protective order is issued to require the respondent, the petitioner or both to obtain counseling or social services, including domestic violence education.
- → The section of this act dealing with increasing the membership of the domestic violence prevention and treatment council took effect upon passage. The sections of this act dealing with the protective order depository and the court providing a copy of the restraining order to each party, the sheriff and law enforcement agency took effect retroactively May 3, 1989. The remaining sections take effect July 1, 1990.

## HEA 1216

Lengthens from 20 years to 35 years the maximum permissible term of loans for county hospitals.

This act took effect upon passage.

## **HEA 1217**

Removes the requirement that a case worker visit the home of an Aid to Families with Dependent Children (AFDC) applicant. Since Indiana now has Aid to Families with Dependent Children – Unemployed Parents (AFDC-UP), it is no longer necessary to determine if there is a man in the house (this section of the act takes effect July 1, 1990);

requires tanning facilities to be licensed and

inspected by the state board of health;

requires tanning facilities to post signs that inform individuals using the facility of the dangers of tanning;

prohibits a tanning facility employee from

professing that a tanning device is risk free;

requires an employee who is determined by the state board of health to be knowledgeable in the correct operation of the tanning devices to be present in the facility during business hours to instruct customers on the proper use of the tanning devices and further requires that the employee limit the customer to the maximum allowable exposure time;

⇒ prohibits a person under 16 years of age from using a tanning facility unless that person is accompa-

nied by a parent or guardian;

prohibits a person under 18 years of age from using a tanning facility unless a parent or guardian has signed a written statement;

→ sets criminal and civil penalties for tanning facilities that fail to meet the requirements of this law (the sections of the act relating to tanning facilities

take effect Jan. 1, 1991);

requires health care providers to routinely provide to a patient a copy of claim information that the provider has sent to the patient's insurance company, Medicare or other third party payor (excluding Medicaid) if the patient so requests (this section of the act takes effect July 1, 1990);

requires the state department of public welfare to annually conduct a survey of pharmacy providers to assess the appropriate level of dispensing fees to be

paid to providers for prescribed drugs;

→ provides that if the survey data warrant an adjustment of the dispensing fees, the department must begin to promulgate those rules no later than Nov. 1 of that year (these sections of the act take effect July 1, 1991);

establishes the aid to county hospitals tuberculosis fund to reimburse hospitals that treat patients afflicted with tuberculosis for whom there are no other sources of reimbursement (this section of the act

takes effect April 1, 1990);

authorizes the auditor's office to make payments to hospitals that have treated tuberculosis patients for whom there is no other source of reimbursement (this section is retroactive to July 1, 1989);

→ allows a podiatrist licensed under Indiana law to be granted practice privileges at an ambulatory

outpatient surgical center;

expands current law to allow a licensed physician, dentist or podiatrist who is legally authorized to perform the procedure and is privileged to perform surgical procedures in at least one hospital in the county or a county adjacent to the county to be admitted to the open staff of an ambulatory surgical center;

makes a technical change to current surgicenter law regarding anesthesiologists by changing the wording to "a physician licensed under IC 25-22.5 who has had specialized training or experience in the administration of an anesthetic" (these sections of the act took effect upon passage);

- amends current AIDS law to protect the health of health care personnel, emergency medical personnel, firefighters, law enforcement officers and correctional officers in emergency situations by allowing a court to order that an individual be taken into custody to run appropriate testing to determine whether the individual poses a threat to the public health or has posed a threat to emergency personnel in some instance (this section took effect upon passage);
- removes the current requirement for several bacteria and virus tests for semen donors;
- requires the state board of health to adopt rules that provide for the testing of communicable diseases in relation to artificial insemination;
- removes from the current definition of home health care "non-medical nursing care given in accordance with the tenets and practice of a recognized church or religious denomination to a patient who depends upon healing by prayer and spiritual means alone in accordance with the tenets and practices of the patient's church or religious denomination" (these sections take effect July 1, 1990);
- requires the Indiana Physical Therapy Committee to issue a license or a certificate by endorsement to any physical therapist or physical therapy assistant applicant from another state if the applicant is in good standing and has passed the national licensure examination at a pass rate equal to or exceeding the examination standards of Indiana;
- requires the committee to issue licenses to practice physical therapy to individuals who have graduated as physical therapists in foreign countries providing the applicant has passed the appropriate examinations and would otherwise be qualified according to Indiana statutes;
- → requires the committee to use no less than three credentialing evaluation agencies for the purpose of evaluating educational programs of foreigntrained physical therapists;
- expands the current psychologist certification law to allow an individual applying for endorsement as a psychologist to satisfy one year of the two-year supervised health service requirement by completing an approved preceptorship program;
- allows the state psychology board to issue a certificate to an individual who has continuously practiced psychology since Sept. 1, 1985, if that individual meets all other qualifications for certification, including passing an examination of the state or federal statutes, state rules and federal regulations that the board determines by rule to be relevant to the practice of psychology;
- allows the state psychology board to issue a certificate to an individual if the individual holds a valid license or certificate as a psychologist from another state and has practiced continuously since being licensed or certified, possesses a doctoral degree from

- a recognized institution of higher learning and meets all other qualifications for certification as indicated by the board, including passing an examination administered by the board;
- → allows an individual who took the psychologist's examination in April 1984 and who is licensed or certified as a psychologist by another state to have two points added to the individual's examination score for each year that the individual has been licensed or certified by the other state by July 1, 1990, to determine the individual's passing score on the examination taken in April 1984 (these sections took effect upon passage);
- requires the state board of health to conduct a biennial blind survey of numerous health care providers to determine the extent of the shortage of both licensed and unlicensed nursing personnel;
- specifies that the results of this study be compiled and reported to the members of the General Assembly by Nov. 1, 1990, 1992 and 1994 (these sections take effect July 1, 1990, but expire Jan. 1, 1995);
- requires the commission for higher education to establish a nursing preparatory education pilot project in two communities in Indiana for three years, starting in 1990-91, to promote high school students' interest in nursing careers (this section takes effect July 1, 1990, but expires Jan. 1, 1997);
- establishes a special skilled services payment rate for health facilities serving chronically medically dependent AIDS patients;
- → allows the department of public welfare to approve 100 beds at this rate with the possibility of more beds being jointly approved by the commissioner of the state board of health and the administrator of the department of public welfare (these sections took effect upon passage but expire July 2, 1992).

## HFA 1224

- Requires the approval of the county fiscal body for the use of incentive payments made by the child support division of the department of public welfare to increase the salaries of elected clerks and prosecuting attorneys (this section took effect upon passage);
- expands SOBRA Medicaid eligibility for pregnant women and infants up to age 6 and up to 133% of the federal poverty level, as required by federal law (this section took effect April 1, 1990);
- makes numerous technical corrections to the statute regarding the program for children with special health care needs (formerly the crippled children program) to facilitate the transfer of the program from the department of public welfare to the state board of health (these sections take effect July 1, 1991, when the transfer is scheduled to take place);
- ⇒ establishes the Children with Special Health Care Needs Advisory Committee to work on the transfer of the program (this section takes effect Sept.

1, 1990);

⇒ allows the state board of health to assign an eligible child for care, services or treatment by a licensed physician or other approved provider in addition to a hospital or diagnostic and treatment center;

authorizes the board of health to contract for services necessary to administer the program, including the determination of medical eligibility and the development of standards of care for children who are

served by the program;

⇒ establishes the Children with Special Health Care Needs State Fund, which will be administered by the state board of health and funded by the current statute, contributions and any additional state appropriations;

establishes the Children with Special Health Care Needs Federal Fund, which also will be administered by the state board of health but will be funded by portions of the maternal and child health block grant and all or a portion of any other federal grants

that do not preclude this use;

changes the funding formula to ensure an appropriate base year for the county tax levy and to ensure that the funds raised by the property tax levy are based on the county's assessed value growth quotient and that these funds will be forwarded to the state to be combined with state funds;

→ repeals the statutes that permit counties to borrow in order to finance the Children with Special Health Care Needs Program (these sections take effect

Iuly 1, 1991):

- provides that the results of a DNA test used to determine paternity may be used to correct a birth certificate only if the father is not already named on the birth certificate (this section takes effect July 1, 1991):
- requires the commissioner of the department of mental health to develop mental health services that must be available to any person in Indiana upon order of a court;

requires the department of mental health to submit a plan and cost analysis to implement the provision of mental health services to any eligible person in Indiana (these sections take effect July 1, 1990);

- changes the state's antiquated reimbursement policy for Riley Hospital in Indianapolis by repealing a provision that stated "no compensation could be charged by or allowed to any physician, surgeon or nurse for the treatment or care of any such patient, other than the compensation paid to such physician, surgeon or nurse by the board of trustees of Indiana University" (this section takes effect July 1, 1991);
- restricts locations of vending machines selling tobacco products so minors under the age of 18 will not have access to such machines;
- permits cigarette machines in bars or private industrial or office locations that are customarily ac-

cessible only to people who are at least 18 years old (this section takes effect July 1, 1990);

increases the membership of the commission of state health policy by six members (two to represent labor; two to represent consumers one of whom must be a senior citizen; and two to represent business interests, one of whom must represent small businesses) and requires members to be appointed from different geographic regions of Indiana;

requires the state health policy commission to study a state administered health care plan that would provide uniform access to comprehensive health care for all state residents, regardless of disabil-

ity or pre-existing medical condition;

extends the life of the state health policy commission by one year, thus, making its final report due Nov. 1, 1992, (these sections took effect upon passage);

appropriates \$45,000 from the state's general fund to be used by the health policy commission to carry out its business (this section takes effect July 1, 1990, but expires Jan. 1, 1993).

## HEA 1244

→ Provides that community or migrant health centers located in a shortage area are eligible to apply for a grant from the Indiana medical and nursing grant fund;

increases the grant award from \$5,000 to

\$10,000;

expands the grant program to authorize grants to physicians who specialize in obstetrics or gynecology;

⇒ sets \$2,500 as the maximum matching grant

that can be required from a shortage area;

- requires the state board of health to provide equipment, supplies, formula and other materials, for all infants and individuals identified as having phenylketonuria, hypothyroidism, hemoglobinopathies, galactosemia, maple syrup urine disease, homocystinuria and inborn errors of metabolism that result in mental retardation and are designated by the state board of health;
- establishes the nursing scholarship fund to encourage and promote qualified individuals to pursue a career in nursing;

➡ provides that the state student assistance commission shall administer the nursing scholarship fund;

- provides that to initially qualify for a scholarship from the nursing scholarship fund, a nursing student must be admitted to an approved institution of higher learning as a full-time or part-time nursing student, agree to work as a nurse in any type of health care setting in Indiana for at least two years, meet any other minimum criteria established by the commission and demonstrate a financial need for the scholarship;
  - transfers \$400,000 from the medical and nurs-

ing grant fund to the nursing scholarship fund.

The sections of this act dealing with the Indiana medical and nursing grant fund and the nursing scholarship fund take effect July 1, 1990. The remaining sections took effect upon passage.

## HEA 1288

→ Creates the state emergency management agency to coordinate the state's emergency plans and to serve as the coordinating agency for all state efforts for preparedness for, response to, mitigation of and recovery from emergencies and disasters;

merges the department of civil defense with the Indiana Emergency Medical Services Commission;

abolishes the state civil defense advisory council;

requires the state emergency management agency to assume all powers, duties and functions of the civil defense advisory council and the department of civil defense;

reduces the membership of the Indiana Emergency Medical Services Commission from 15 to nine;

requires that one member of the Indiana Emergency Medical Services Commission must be a physician with an unlimited license to practice medicine and one member must be a physician with an unlimited license who has an interest in trauma care and is currently practicing in a trauma facility;

→ allows the Indiana Emergency Medical Services Commission to suspend or revoke an emergency medical technician certificate or a paramedic certificate or a paramedic certificate.

cate for a period not to exceed seven years.

→ This act takes effect July 1, 1990.

## HEA 1323

→ Provides that a custodial and non-custodial parent of a child shall have equal access to their child's health records unless a court has issued an order that limits the non-custodial parent's access to the child's health records and the provider has received a copy of the court order or has actual knowledge of the court order;

⇒ provides that a non-public or public school must allow a custodial and a non-custodial parent of a child the same access to their child's education records unless a court has issued an order that limits the non-custodial parent's access to the record and the school has received a copy of the court order or has

actual knowledge of the court order.

➡ This act takes effect July 1, 1990.

## HEA 1354

- → Re-establishes the Indiana Commission on Autism to study the service delivery system for people with autism and the families of persons with autism;
  - → provides that the speaker of the House and the

president pro tempore of the Senate shall appoint four legislators (two from each chamber and two from each party) and three lay members to serve on the commission;

⇒ provides that the speaker of the House shall select a legislative member to serve as the chairman of the commission (these sections took effect upon passage):

includes various other provisions unrelated to

health care.

→ This act took effect upon passage.

## **HEA 1357**

→ Allows a court, when making a dispositional decree or other order in a child in need of services (CHINS), delinquency or termination of parental rights proceeding, to make a restraining order that protects the child a part of the order of decree and requires those decrees with restraining orders to be entered in the depository for protective orders that exists in the office of each sheriff or law enforcement agency;

→ establishes the data bank for DNA population statistics that is to be administered by the department of medical genetics of the Indiana University School

of Medicine;

→ requires that all non-identifying data concerning allele frequencies and demographics that are generated by a laboratory conducting DNA analysis for use in Indiana be submitted by the laboratory to the department of medical genetics for inclusion in the data bank;

requires the medical genetics department to release the population statistics from the data bank to any person requesting the information who has paid

the required fee;

- defines forensic DNA analysis as "an identification process in which the unique genetic code of an individual that is carried by the individual's deoxyribonucleic acid (DNA) is compared to genetic codes carried in DNA found in bodily substance samples obtained by a law enforcement agency in the exercise of the law enforcement agency's investigative function:"
- → provides that the results of forensic DNA analysis are admissible in evidence without antecedent expert testimony that forensic DNA analysis provides a trustworthy and reliable method of identifying characteristics in an individual's genetic material;

specifies that missing children are CHINS;

- → repeals a statute that conflicts with the policy of juvenile law that prohibits the secure detention of children in need of services;
- expands current law to allow a court to appoint a special advocate and/or a guardian ad litem for a missing child brought before the court;

offenses, (including sex crimes, battery of a child, kidnapping and confinement, incest, neglect of a dependent, etc.) CHINS proceedings and termination of parental rights proceedings, pretrial statements, videotapes or closed circuit television testimony of a child who is less than 14 years of age or who is mentally disabled may be used instead of placing the person who made the statement, videotape or is testifying by closed circuit television on the witness stand in open court if a physician or psychologist has certified that the protected person's testifying in the courtroom creates a substantial likelihood of emotional or mental harm to the protected person;

eliminates the presumption of incompetency of child witnesses who are less than 10 years of age;

makes it a Class A misdemeanor for a person to recklessly, knowingly or intentionally deprive an endangered adult or a dependent of the proceeds of the endangered adult's or the dependent's Social Security benefits for which the state or county department of public welfare has budgeted for the endangered adult's or dependent's health care;

⇒ establishes the Child Abuse Reporting and Registry Study Committee to study whether a statewide child abuse registry should be established in Indiana and, if so, to determine methods for protecting the due process rights of individuals and the confidentiality of records maintained in such a registry;

→ The sections of this act that address DNA take effect July 1, 1990. The section of this act that eliminates the presumption of incompetency for witnesses 10 years of age or less takes effect July 1, 1990. All other sections of this act took effect upon passage.

## HEA 1359

Specifies that local units of government have authority to provide programs of group insurance for active and retired employees through self-insurance;

provides that the establishment of a self-insurance program is subject to the approval of the unit's fiscal body;

permits a local unit to pay all or part of the employer's premium for insurance for an employee who is on leave without pay.

→ This act takes effect July 1, 1990.

## HEA 1404

- ➡ Increases to \$125 million the amount the patient's compensation fund must reach before the insurance commissioner is required to lower the surcharge;
- allows people who believe they have been adversely affected by unfair insurance claim settlement practices to file a complaint with the insurance commissioner;
  - specifies the investigatory and hearing proc-

esses that must be followed and provides civil monetary penalties to those insurers found guilty;

requires insurance companies to notify all of their current customers of the available remedies against unfair insurance practices;

requires the commissioner to publish annually the number of consumer complaints filed against each

insurance company;

prohibits an insurer from cancelling, failing to renew or refusing to issue an automobile insurance policy to a disabled person soley because of the disability, if that person holds a valid driver's license;

→ prohibits an insurer from cancelling, failing to renew, or refusing to issue an automobile insurance policy under conditions less favorable to disabled people than non-disabled people.

→ The section of this act dealing with the patient's compensation fund took effect upon passage. The remaining sections take effect July 1, 1990.

## **HEA 1418**

→ Provides that a psychiatrist practicing in the employment of a community mental health center shall not be required to request prior authorization to treat Medicaid eligible patients if such a request is not required of psychiatrists in private practice;

provides that the health or accident insurance of an adoptee is effective the earlier of the date of placement for the purpose of adoption or the date of the entry of an order granting the adoptive parent custody of the child for purposes of the adoption;

- provides that a court may order the county department of public welfare to pay a subsidy for the medical, surgical, hospital and related expenses for an adoptive child due to the physical, mental, emotional or medical condition of the child if the condition or the cause of the condition existed before the adoption petition was filed and payments from insurance or public funds to treat the condition or cause of the condition are not available to the adoptive child or adoptive parents;
- requires the subsidy to continue until the adoptive child reaches 18 years of age unless the court orders the subsidy to continue until the child reaches

21 years of age.

→ The section of this act dealing with psychiatrists takes effect July 1, 1990. The section of this act dealing with health and accident insurance applies to a policy issued for delivery in Indiana after June 30, 1990. The section of this act dealing with the payment of a subsidy applies to a petition for adoption that is filed after June 30, 1990.

## HEA 1426

- → Provides for the registration of maternity homes;
  - establishes a maternity assistance development

grant fund for non-profit organizations that operate registered maternity homes;

establishes a tax credit for operators of regis-

tered maternity homes;

adds maternity homes to the list of facilities excluded from the definition of "health facility" and landlord-tenant rental agreements;

adds maternity homes to the list of residences where a person ordered to home detention may stay;

provides that maternity housing costs can be paid in an adoption.

→ This act takes effect July 1, 1990.

## HEA 1439

 Requires all entities that provide health or sickness coverage in Indiana to register with the insurance commissioner and indicate if the coverage provided is subject to federal ERISA guidelines;

includes other provisions unrelated to health

care.

→ This act takes effect July 1, 1990.

## HEA 1451

Provides that a minor who is convicted of purchasing or procuring an alcoholic beverage with or without using a false or altered driver's license shall have his driver's license suspended for up to one year;

provides that a child who has been convicted of dealing or possessing a controlled substance shall not be issued a learner's permit or shall have his driver's license invalidated for a period of at least 90

days but not more than one year;

provides that an adult who is convicted of offenses involving controlled or counterfeit substances shall have his driver's license or permit suspended for 90 days;

provides that, as a condition of parole, the parole board may require the parolee to periodically undergo a laboratory chemical test to detect the presence of a controlled substance;

adds certain criteria a person must meet before

being eligible for probation;

provides that a person's professional license or certificate may be suspended or revoked if that person is convicted of a felony drug offense;

provides that a person's professional license or certificate shall be suspended or revoked if that person is convicted of manufacturing, dealing or attempting to deal in drugs.

This act takes effect July 1, 1990. The suspending or revoking of professional licenses applies to offenses that are committed after June 30, 1990.

## Senate enrolled acts

## **SEA 191**

Requires group and individual insurance policies providing comprehensive accident and health benefits to reimburse for services rendered by a chiropractor in the same manner as the policy reimburses for services rendered by a physician;

➡ prohibits an insurance policy from excluding or otherwise limiting reimbursement for services rendered by a chiropractor under the chiropractic scope

of practice for any illness or injury;

allows an insurance policy to apply co-insurance and deductible provisions for chiropractic services on the same basis as those provisions apply to physicians;

allows an insurance policy to apply cost containment or quality assurance measures to chiropractors on the same basis as those measures apply to

physicians;

→ allows an insurance policy to apply utilization review provisions to chiropractic services on the same basis as those provisions are applied to physicians.

➡ This act applies to policies issued or renewed

after June 30, 1990.

## **SEA 211**

Allows people who believe they have been adversely affected by unfair insurance claim settlement practices to file a complaint with the insurance commissioner;

requires insurers to notify all policy holders of the remedies regarding unfair claim settlement prac-

 increases the civil penalties for unfair claim settlement practice from \$2,000 to \$25,000 and from \$5,000 to \$50,000 for a knowing violation;

increases from \$10,000 to \$25,000 the civil penalty for violation of a cease and desist order of the insurance commissioner or a final court order;

requires the insurance commissioner to annually publish figures indicating the ratio of valid consumer complaints filed against each insurance company, weighted by the direct premiums earned in Indiana by each company;

requires the insurance commissioner to adopt rules establishing minimum standards for marketing practices, compensation arrangements and reporting

practices for Medicare supplement policies;

repeals the statute that under certain circumstances prohibited an insurer from compensating the insurer's agent more for selling a replacement Medicare supplement policy than the insurer would have paid the agent upon renewal of the old Medicare supplement policy.

The sections of this act that specifically address Medicare supplemental policies took effect upon passage. All other sections take effect July 1, 1990.

## SEA 290

⇒ Establishes the public safety institute to develop and provide a training program for public

safety service providers;

defines a "public safety service provider" as an officer or employee of the state, an officer or employee of a governmental unit or a volunteer who is engaged in firefighting, civil defense, environmental management, fire or building inspection, emergency medical service or any other public safety activity that the public safety training board may designate;

establishes the public safety training board to develop and conduct advanced training programs in public safety subjects on a voluntary enrollment basis. The board may offer courses to any public safety service provider that the board determines will benefit

from the training;

appropriates \$175,000 to the public safety training board from the fire and building services fund;

combines the state fire marshal fund and the state building commissioner fund to form the fire and

building services fund.

→ The sections of this act dealing with the public safety institute and the public safety training board take effect July 1, 1990. The section of this act repealing the state building commissioner fund takes effect July 2, 1990.

## SEA 321

→ Provides that laws mandating health insurance coverages do not apply to an insurer unless the laws apply equally to self-funded employee welfare benefit plans.

➡ This act takes effect Jan. 1, 1991.

## **SEA 396**

Requires that before the last day of each month an alcohol abuse deterrent program established by a circuit court must submit to the division of addiction services of the department of mental health certain information, including the number of participants receiving services who have been ordered to participate by a court or the department of correction or who have been released by the department;

➡ requires the division of addiction services to submit an annual report to the governor compiling the information received from the abuse deterrent

programs;

provides that a person, a firm, a corporation, a partnership, an association, a foundation, a local governmental unit or an agency, whether public or private, that fails to comply with the information and reporting requirements may not receive public funds, may not be used by the department of correction as a

program for treatment of offenders, may not be used by the department of mental health as a treatment program for people who are released and may not be used by a criminal court as a program for people under the jurisdiction of the court;

prohibits a court from ordering a defendant or a convicted person to complete an alcohol and drug services treatment program, unless the court determines that the program in which the person is to participate has complied with the information and reporting requirements.

➡ This act takes effect July 1, 1990.

## 1990 legislative morgue

It is often true that what did *not* become law is as notable as what *did* become law. With that in mind, here is the 1990 legislative morgue:

## House Bill 1034

→ Would have prohibited abortions in public facilities unless the procedure was necessary to save the life of the mother; required physicians to assess the viability of the fetus before performing the abortion if the physician believed the fetus to be at least 20 weeks gestational age.

## House Bill 1076

→ Provided for an appropriation of \$1.34 million to the medical education board to administer the intern-residency fund.

## House Bill 1134

→ Would have required physicians, at least 24 hours before performing abortions, to provide printed information (provided by the state board of health) to pregnant women considering abortions; required physicians to disclose the medical risks associated with the abortion procedure as well as the risks of carrying the pregnancy to term; required physicians to inform pregnant women that they may be eligible for Medicaid for their prenatal care and that the father of the child would be liable for child support payments should the pregnant woman decide to carry the pregnancy to term.

## House Bill 1150

→ Would have required all prescription labels to include the name of the manufacturer or distributor of the drug product as well as the generic name of the product.

## House Bill 1242

Sought to create a new crime: "criminal neglect of a patient." "Neglect" was defined as "placement of a person in a situation that may endanger the person's life or health." The bill would have subjected owners, operators, agents or employees of nursing homes who engaged in neglect to criminal prosecution, punishable as a Class D felony or a Class B felony if the neglect resulted in serious bodily injury or death.

## House Bill 1265

In its original form, this bill would have established a state-administered universal health plan, "Canadian-style." It would have created a state "universal health plan commission" to administer the program. Providers would have been reimbursed for services by the state "universal health trust fund" established by the bill. The bill also would have prohibited renewal of private insurance policies and replaced those with the state-administered health insurance plans.

## House Bill 1355

→ Would have established state certification for social workers and marriage and family therapists. Although the bill passed the General Assembly, it was vetoed by the governor. The veto could be overridden during the next session of the General Assembly.

## House Bill 1430

→ Would have allowed chiropractors to treat injured workers under the worker's compensation law.

## Senate Bill 260

➡ Would have allowed physicians to test patients for HIV without the patient's informed consent if the physician needed the test to diagnose and treat the patient. Also sought to require the state board of health to conduct contact tracing activities when notified under the "duty to warn" statute.

## Senate Bill 373

→ Would have consolidated four agencies of state government (the state board of health, the department of public welfare, the department of mental health, and the department of human services) into a single agency: the department of health and family services.

## Senate Bill 495

→ Sought to reduce (from .10% to .08%) the blood alcohol content that is necessary to constitute prima facie evidence of intoxication in a prosecution for operating a motor vehicle or watercraft while intoxicated.

## Index

Those bills marked with an asterisk (\*) were not successful during the 1990 session of the Indiana General Assembly. Summaries of these bills can be found in the legislative morgue.

## Abortions:

Adoptees ......HEA 1418

AFDC (Aid to Families with

Dependent Children)......HEA 1217

## AIDS:

- Contact tracing (mandatory) .......SB 260\*
   Emergency worker testing ......HEA 1217
- Testing without informed consent ..........SB 260\*

## Alcohol:

- Alcohol, Drug Services Treatment Program ......SEA 396

Alzheimer's disease ......HEA 1148

Ambulatory surgical centersHEA	1217
AnesthesiologistsHEA	1217
Artificial inseminationsHEA	1217

Autism (Commission on).......HEA 1354

Billing procedures HEA 1217

Billing procedures ......HEA 1217

Budget:
- 1990 supplement ......HEA 1157

Intern-residency fund increase ..........HEA 1076\*
 Child Abuse Registry (study of) .......HEA 1357

Child support.....HEA 1224

Children with special health care needs......HEA 1224

## CHINS (Children in Need of Services):

- Release of mental health records.......HEA 1170
- Restraining and protective orders ...... HEA 1357

## Chiropractors:

- Mandated insurance coverage ......SEA 191

- Workers compensationHB 1430*	Intermediate care facilities	HEA 1112
Communicable diseases:  - Testing before artifical inseminationHEA 1217  - See also AIDS	Marriage and family therapists (certification of)	НВ 1355*
Criminal neglect of patients	Maternity assistance grants	HEA 1426
	Maternity homes	HEA 1426
Crippled Children's ProgramHEA 1224	Medicaid:	
DefibrillatorsHEA 1188	<ul> <li>Intermediate care facilities</li> </ul>	
Department of Civil DefenseHEA 1288	reimbursement	HEA 1418
DNA:	- SOBRA options	HEA 1224
<ul> <li>Paternity cases</li> <li>Use in courts</li> <li>HEA 1224</li> <li>HEA 1357</li> </ul>	Medical and Nursing Grant Fund	HEA 1244
Ose in courts imminimize the court of the co	Medical malpractice:	
Domestic violenceHEA 1192	- Patients compensation fund	HEA 1404
Drugs:	Mental health:	
- Alcohol, Drug Services	Mental health centers	HEA 1418
Treatment ProgramSEA 396	Mental health records	
- Drug abuseHEA 1159	- Residential care	
- Drug free communitiesHEA 1159	<ul> <li>Statewide mental health</li> </ul>	
- Labeling of generic prescriptionsHB 1150*	services plan	HEA 1224
- MinorsHEA 1451	1	
- ParaphernaliaHEA 1069	Migrant health centers	HEA 1244
- Suspension of driver's licensesHEA 1451		
<ul> <li>Suspension of professional licenses HEA 1451</li> </ul>	Nursing:	
	<ul> <li>– Nursing shortage survey</li> </ul>	HEA 1217
Emergency medical services:	- Nursing scholarships	HEA 1244
<ul> <li>Emergency management agencyHEA 1288</li> </ul>		
<ul><li>Emergency medical servicesHEA 1188</li><li>Emergency Medical</li></ul>	Pharmacy (provider reimbursement)	HEA 1217
Services CommissionHEA 1288	Physical therapists	HEA 1217
Health records:	Podiatrists	HFA 1217
- Children'sHEA 1323	1 Odlatiots	
- Mental health (access to)HEA 1170	Protective orders	HEA 1192
Home health careHEA 1217	Psychiatrists	HEA 1418
Hospitals:	Psychologists	HEA 1217
- Disproportionate share	)8	
reimbursementHEA 1171	Public Safety Institute	SEA 290
- Loans for county hospitalsHEA 1216	,	
<ul> <li>Riley Hospital reimbursementHEA 1224</li> </ul>	Reorganization of state agencies	SB 373*
- Tuberculosis fundHEA 1217	Residential care	UEA 1112
Insurance:	Residential care	ПЕА 1112
- Chiropractic coverageSEA 191	Scientific research	HEA 1073
- ERISA registrationHEA 1439	ocicitiii icocaicii	
- Health insurers registrationHEA 1439	SOBRA Medicaid options	HEA 1224
- Local units of government coverageHEA 1359		
- Mandated benefit requirementsSEA 321	Social Security benefits	
- Medicare supplemental policiesSEA 211	(depravement of benefits)	HEA 1357

Social workers (certification of)HB 1355*
State Health Policy Commission:  - Increased membershipHEA 1224  - Universal health
(required to study)HEA 1224
Tax credits:
- Maternity homesHEA 1426
- Scientific researchHEA 1073

Telephonic/telegraphic equipmentHEA 1093
Tobacco productsHEA 1224
Universal Health Plan:  - Mandated study
Vending machines (tobacco sold from)HEA 1224
Workers compensation (chiropractors)HB 1430*

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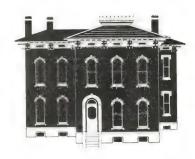
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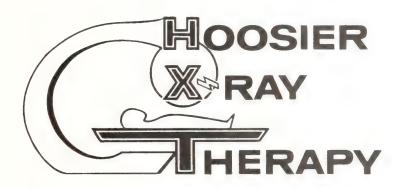
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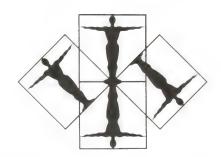
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#### Philip Ball, M.D. Muncie

Fact: Portable phones and cellular car-boat-plane-golf cart phones are increasing in numbers.

Fact: Personal computers at home and computers in offices are becoming more popular.

Fact: The use of fax machines for transmitting printed information is increasing.

Fact: Home medical monitoring devices are used more and more. This includes monitoring of glucose, oxygen, heart rhythm and, especially, blood pressure.

Fact: Telemetry transmission of data by phone line and satellite is increasing.

Fact: Validation of Medicare and other medical insurance plans is transmitted electronically, computer-to-computer, between doctors' offices and the insurance bureaucracy.

Fact: Patients' prescription needs are supplied from remote cities by mail, fax machines or electronic request. If you live in

#### A glimpse of the future

Detroit, your medication comes from Boise, Idaho. And, if you live in Boise, your pills come from Piscataway, N.J., etc.

Fact: Medicare patients are moving to the Sun Belt, either full time or at least half of the year.

Prediction: By 1995, the average primary care doctor in Indiana will see a patient with hypertension only once. After this visit, control of the hypertension will be based on telemetric monitoring. Data from the patient will be sent by satellite to the Hypertension Practice Guideline Master Computer in Washington, D.C. From this control center, electronic messages will be sent to the patient and the prescription service for any dose changes. The control center will seek the patient wherever he or she is. Retired patients on Medicare probably will be contacted on cellular boat phones on Florida waters or portable poolside phones in Arizona.

The primary care doctor in Indiana periodically will receive orders electronically from Washington, asking for a revalidation of the diagnosis. The doctor will be warned if he or she fails to press the right buttons. And, the doctor may be advised later by a fax machine that a penalty is being assessed against him or her. And, the doctor actually may get personal human contact from Washington, D.C., when a U.S. Marshall arrives to arrest the doctor for "electronic malfeasance" in the case of this hypertensive patient, who is now just a one-office-call vague memory.

This case could end on a more traditional note. Perhaps in 2005, the doctor may get a genuine, handwritten letter, asking the doctor to stop the flow of high blood pressure pills that come addressed to her deceased husband

At this point, let me stop this case report. I have to speak to a U.S. Marshall who is in my waiting room!  $\Box$ 

Correspondence: Philip Ball, M.D., 4915 N. Nebo Road, Muncie, IN 47304.

# news briefs

# Lung association offers weekend bicycle trek

The American Lung Association of Indiana will conduct a bicycle tour from Brownsburg to Greencastle to Crawfordsville Aug. 24 to 26. The Spokesongs Bicycle Trek is open to adult cyclists at all fitness levels.

Participants will be asked to raise pledges to support the association's many public health programs, including air conservation, occupational health, childhood and adult lung disease, smoking cessation and medical research. For details, call (317) 573-3900 or 1-800-677-LUNG.

# IU pediatric research center is world-class

The Indiana University Medical Center has established the Herman B Wells Center for Pediatric Research, a world-class research center. "We want to be in the top 15 or 20 pediatric departments for research in the country," said Richard Schreiner, M.D., chairman and Edwin L. Gresham professor of pediatrics. "We have to be," he continued. "Only the top centers will be on the receiving end of NIH (National Institutes of Health) funding."

The \$4.5 million center is funded solely by the Riley Memorial Association. Renovation efforts included the transformation of old pediatric surgery areas, vacated for new quarters in Riley's 1986 expansion, to state-ofthe-art biomedical research laboratories. The 20,000 square feet of space includes 16 major laboratories, 16 offices, four tissue culture rooms, two sterilization and wash rooms, two storage rooms, two cold rooms, a dark room, two major equipment rooms and two conference rooms.

James Lemons, M.D., receives \$250,000 grant

A five-year, \$250,000, unrestricted Human Nutrition Research Grant from Bristol-Myers Squibb/Mead Johnson will support the investigations of James Lemons, M.D., a principal investigator in fetal and newborn nutrition and growth. Dr. Lemons is the Hugh McK Landon professor of pediatrics and director of the Section of Neonatology/Perinatology in the Department of Pediatrics at the Indiana University Medical Center.

During the past decade, Dr. Lemons' work has focused on several issues regarding fetal growth retardation, the use of nutrients by premature as compared to full-term newborn infants and rapid fetal growth, often seen in diabetic mothers.

The Bristol-Myers Squibb/ Mead Johnson grant will expand these studies, particularly on the molecular level. The grant complements an earlier award of \$250,000 from Mead Johnson Laboratories, a subsidiary of Bristol-Myers, which made possible the purchase of a mass spectrometer for metabolic research in human nutrition.

#### Ticks can transmit two dangerous diseases

Ticks are more than just annoying when they latch on to you or your pet.

Ticks also carry two dangerous diseases, said Robert Pinger, director of the Public Health Entomology Lab at Ball State University. According to Pinger, ticks can transmit Rocky Mountain Spotted Fever, which can be fatal, and Lyme disease, a chronic painful illness.

Pinger said Rocky Mountain Spotted Fever is transmitted by the American dog tick and generally runs from April to August. Lyme disease is transmitted by the deer tick and runs from June until winter. Both ticks can be found on dogs, cats and people.

# Revised practice management book now available

The fourth edition of *Practice Management for the Physician* has been released by Ronald W. Winer, author, accountant and hospital consultant.

For physicians just starting a practice, the book offers guidelines to the choices and decisions that must be made, as well as advice on how to set up, organize and orchestrate a successful practice. For physicians already practicing, it offers information for measuring the success of a practice. The book addresses computerized billing, charting systems, marketing and legal issues.

The book is \$129.95. To purchase a copy, contact the Greenwald Communications Corp., P.O. Box 5157, Akron, OH 44313, (216) 864-9920, or (216) 864-8211 to fax.

# Videos available for 15-day free viewing

CRM Films has six new video titles available for teaching nurses and patients about AIDS and herpes. The titles include: "The Immune Response;" "Herpes: The Evasive Invader;" "Immunodeficiency: A Disease of Life;" "Managing Stress;" "The Get Well Series with Norman Cousins;" and "Face to Face on AIDS."

The films are available in VHS and Umatic formats and can be purchased or rented for three days. The films also are available on a free, 15-day trial basis. For information, call CRM Films, 1-800-421-0833. □

# ■ obituaries

#### Catherine M. Balkema, M.D.

Dr. Balkema, 82, a Lafayette general practitioner, died April 28 in Home Hospital in Lafayette.

She was a 1944 graduate of the University of Louisville School of Medicine and a medical technician at the U.S. Marine Hospital in Evansville from 1933 to 1941.

Dr. Balkema was a member of the American Academy of Family Physicians and a staff member of Lafayette Home and St. Elizabeth hospitals.

#### Karl M. Beierlein, M.D.

Dr. Beierlein, 90, a retired Fort Wayne gynecologist and obstetrician, died April 18 at The Towne House in Fort Wayne.

He was a 1925 graduate of the University of Michigan School of Medicine and a veteran of both World Wars

Dr. Beierlein retired in 1970. He was a fellow of the American College of Surgeons and a diplomate of the American Board of Obstetrics and Gynecology.

#### Kenneth R. Downs, M.D.

Dr. Downs, 63, Noblesville, died April 19 at the Noblesville Healthcare Center. He had been medical director for Navistar International Transportation Corp. in Indianapolis for 15 years.

He was a 1952 graduate of the University of Louisville School of Medicine and a veteran of the Army and Air Force. He was plant physician for Inland Steel and the Wisconsin Steel Corps.

from 1969 to 1975 and for E.I. du Pont de Nemours & Co. from 1965 to 1968.

Dr. Downs was a member of the Industrial Medical Association.

#### Glen W. Hawkins, M.D.

Dr. Hawkins, 64, a former anesthesiologist at Memorial Hospital in South Bend, died April 22 in Sanford, N.C.

He was a 1954 graduate of the Indiana University School of Medicine and a Navy veteran.

Dr. Hawkins, formerly of Culver, Ind., was affiliated with Lee County Hospital in Sanford.

#### Gordon C. McLaughlin, M.D.

Dr. McLaughlin, 70, a former chief of the medical staff at Regional Hospital in Terre Haute, died April 30 at Regional Hospital.

He was a 1944 graduate of the Indiana University School of Medicine and an Air Force veteran. He was a member of the U.S. team that won the World Trapshooting Championship in Oslo, Norway, in 1961.

Dr. McLaughlin practiced pediatrics in Terre Haute since 1954.

#### George W. Wagoner, M.D.

Dr. Wagoner, 78, a retired Delphi general practitioner, died April 17 in Home Hospital in Lafayette.

He was a 1935 graduate of the Indiana University School of Medicine and an Army veteran of World War II. He received the

Samuel Milroy Award in 1982 from the Delphi Chamber of Commerce. In 1988, he was recognized by the Delphi Community School Corp. for outstanding service and contribution to students and school programs.

Dr. Wagoner served two terms as president of the Carroll County Medical Society. He was a member of the ISMA Fifty Year Club and retired in 1981.

#### Charles H. Warneke, M.D.

Dr. Warneke, 54, director of the medical review team for the Indiana Department of Welfare, died April 27.

He was a 1960 graduate of the Indiana University School of Medicine and a state administrator for the last 10 years.

Dr. Warneke, an orthopaedic surgeon, was a member of the Fairview Presbyterian Church and an ordained deacon.

#### Edgar H. Weber, M.D.

Dr. Weber, 91, a retired Evansville physician, died April 30 at St. Mary's Medical Center in Evansville.

He was a 1922 graduate of the Jefferson Medical College in Philadelphia. He was the first chief of the medical staff and chief of the surgical section at St. Mary's Hospital, now the St. Mary's Medical Center, in Evansville.

Dr. Weber was a member of the American College of Surgeons and the ISMA Fifty Year Club.  $\square$ 

# people

**Dr. John R. Hayes**, director of medical psychiatry at the Indiana Psychiatric Consortium and St. Vincent Hospital and Health Care Center in Indianapolis, has been appointed to the American Board of Family Practice Board of Directors and will represent the specialty of psychiatry.

Dr. John E. Joyner, an Indianapolis neurosurgeon, was awarded the Albion College's Distinguished Alumni Award

May 12.

Dr. Mary Mahern, a family practice resident at St. Francis Hospital Center in Beech Grove, was given a 1990 Mead Johnson Award for Graduate Education in Family Practice based on leadership, community involvement and exemplary patient care; she was one of 20 Mead Johnson award

recipients.

Dr. Ronald C. Hamaker, an Indianapolis surgeon, recently became a member of the American Radium Society and presented a paper on "Surgical Resection and Intraoperative Radiation Therapy for Head and Neck Carcinoma and Recurrence in Previously Irradiated Fields" at the 72nd Annual Meeting in Scottsdale, Ariz.; he also received the Distinguished Alumni Award from the Wayne State University School of Medicine Alumni Association.

Dr. Hans R. Wilbrandt of Indianapolis presented a paper on "The Role of the Mini-Maxi Capsulorhexis for Intercapsular Phacoemulsification" at the March meeting of the World Congress of Ophthalmology in Singapore. He also presented papers at the Top Gun Phaco Course in Gloversville, N.Y., and the Small Incision Phaco Course in New Orleans.

Dr. Robert C. Gregori, a spe-

#### Physician Recognition Award recipients

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Babcock, James L., Bluffton Brown, Lorin M., Munster Cole, Larry G., Yorktown Donesa, Antonio B., Fort Wayne Eble, John N. II, Indianapolis Felker, Dean R., Greenfield Fortuna, Frank W., Beech Grove Gabrys, G.T., Fort Wayne Gentile, Jonathan P., Fort Wayne Haines, David W., Warsaw Hathaway, William H., Auburn Houck, Verlin T., Nappanee Howard, Michael D., LaPorte Howell, Ray D., Roachdale Huus, John C., Evansville Jackson, Howard C., Madison Jani, Natwerlal S., Indianapolis

Johnson, Phillip M., New Albany Kay, John B., Huntington Kaye, Robert C., Rensselaer Leipold, Jon D., South Bend Mattox, Dean L., Angola McClary, Charles W., Bloomington McCord, George E., Indianapolis Minick, Linus I., Churubusco Pietz, David G., Bluffton Reddy, R. Venkata, Indianapolis Smith, Thomas R., Craigville Spence, William C., Knightstown Stolz, Thomas J., Otterbein Stouder, Gary S., Greenfield Voskuhl, William L., Charlestown Warner, T. Max, Indianapolis

cialist in physical medicine and rehabilitation and medical director of the Rehabilitation Institute at Winona Memorial Hospital in Indianapolis, has joined Orthopaedics Indianapolis Inc.

**Dr. Stephen E. Brown** joined Fort Waye Cardiology July 1.

Dr. John F. Williams Jr., an Indianapolis physician, has been appointed to the board of directors for the Indianapolis Health Institute.

**Dr. August M. Watanabe**, an Indianapolis physician, has joined Eli Lilly & Co. as vice president of Lilly Research Laboratories.

Dr. Primo A. Andres of Terre Haute received the Outstanding Gold Heart Service Award from the Vigo County unit of the American Heart Association at its annual awards luncheon. Dr. Kenneth S. Woodman, general surgeon at Reid Memorial Hospital in Richmond, became president of the Indiana Chapter of the American College of Surgery May 1.

Dr. C. Kurt Alexander of Muncie has been certified in endocrinology, and Dr. R. Curtis Oehler of Brazil has been certified in cardiology by the American Board of Internal Medicine.

Dr. James A. Hall of Logansport was promoted to clinical assistant professor in the Department of Obstetrics and Gynecology at the Indiana University Medical Center.

Dr. Joseph A. Greenlee Jr., chief of aerospace medicine and commander of the 122nd Tactical Hospital in Fort Wayne, has been promoted to brigadier general in

# people

the Indiana Air National Guard.

Dr. Steven J. Arnow, an ophthalmologist, was elected chief of staff of the Dearborn County Hospital in Lawrenceburg. Other officers include: Dr. Lawrence R. Bailey, chief of staff-elect; Dr. Frank L. Frable, secretary-treasurer; Dr. A. Keith Rhodes, chief of surgery; Dr. William L. Hagan, chief of medicine; Dr. George G. Morrison, chief of obstetrics; and Dr. Louis L. Moss, chief of pediatrics.

**Dr. James A. Trippi**, a cardiologist and founder of the Gennesaret Free Clinic in Indianapolis, was named Indianapolis Volunteer of the Year at the Volunteer Action Center's 17th Annual Volunteer Recognition Ceremony.

**Dr. Frederick W. Bigler**, a Goshen anesthesiologist, was named county health officer by the Elkhart County Health Board.

**Dr. Joseph B. Brill**, executive director of LifeSpring Mental Health Services in Jeffersonville, has retired after 27 years of service.

**Dr. James E. Eckenhoff**, retired dean of Northwestern University School of Medicine, was elected chairman of the board of Lakeland Health Corp., the parent corporation of LaPorte Hospital.

Dr. Nancy W. Griffith, a New Castle family practitioner, was named Citizen of the Year at the annual meeting of the National Association of Social Workers Indiana Region 10. □

New ISMA members Robert M. Abel, M.D., Wakarusa, family practice.

**Joseph R. Baele**, M.D., Indianapolis, orthopaedic surgery.

Valentino J. Bianchini, M.D., Frankfort, radiology.

Jon K. Blake, M.D., Gas City, general practice.

Ira Blecker, M.D., Beech Grove, radiology.

**Robert A. Browne**, M.D., Indianapolis, internal medicine.

M. Jack Cotlar, M.D., Indianapolis, internal medicine.

John J. Fitzgerald, M.D., Vincennes, anesthesiology.

**George E. Hutter**, M.D., Fishers, family practice.

**Donald P. Johnson**, M.D., Danville, family practice.

Robert S. Joseph, M.D., Indianapolis, internal medicine.

Michiel N. Kennedy, M.D., Brownsburg, family practice.

Patsy S. Maikranz, M.D., Indianapolis, nephrology.

P. Daniel Read, M.D., Danville, general surgery.

J. Douglas Smith, M.D., Summitville, family practice.

**Bob L. Webb**, M.D., Odon, family practice.

Michael C. Wiemann, M.D., Indianapolis, oncology.

Michael E. Yuhas, M.D., Richmond, internal medicine.

#### Residents

Jeffrey W. Dickerson, M.D., Louisville, Ky., pulmonary diseases. Samia R. Girgis, M.D., Valparaiso, anatomic/clinical pathology.

**Erin Grandstaff**, M.D., South Bend, family practice.

**Gregory K. Koury**, M.D., South Bend, family practice.

Andrew W. O'Shaughnessy, M.D., Indianapolis, anesthesiology.

**Albert J. Peters**, D.O., Indianapolis, obstetrics and gynecology.

Carl J. Sartorius, M.D., Indianapolis, neurological surgery. Charles R. Tribbett, M.D.,

Monticello, family practice.

Jean E. Tucker, M.D., Lancas-

ter, Pa., family practice.

**Robert C. Turner**, M.D., Noblesville, cardiovascular diseases. □



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FOR SALE – Three exam room equipment; green. Includes exam table, side table, wastebaskets. Sold together or separate. Please call (317) 646-8268, Anderson, Ind.

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EMERGENCY MEDICINE – Terre Haute, Ind. Local group seeking full-time career-oriented emergency physician for position in low-and moderate-volume departments. Flexible scheduling, very competitive compensation package. Send CV or contact William R. Grannen, Priority Health Care, P.C., 7179 Lamplite Ct., Cincinnati, OH 45244, (513) 231-0922.

**EMERGENCY PHYSICIANS WANTED -**For Fayette Memorial Hospital in Connersville, Ind. Will consider all physicians with emergency medicine experience. 15,000 visits/year. Fee-for-service group does its own billing. Hourly compensation based on training, experience and qualifications. Excellent fringe benefit package includes, life, health, disability and malpractice insurance plus CME allowance, ACEP and ISMA dues, pension plan and potential bonus. Contact: Michael D. Bishop, M.D., FACEP, Emergency Care Physicians, 640 S. Walker St., Suite A. Bloomington, IN 47403, (812) 333-2731.

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ing two family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to an income and benefit package that is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact: Dan McCormick, President, Allen McCormick, France Place, Suite 920, 3601 Minnesota Drive, Bloomington, MN 55435, (612) 835-5123.

CENTRAL INDIANA – Physicianowned emergency group accepting applications for full-time, career-oriented emergency physicians. Flexible work schedules and excellent benefit package. Parttime and directorship positions also available. Send CV or contact Sherry Bussel, Midwest Medical Management, Inc., 528 Turtle Creek, North Dr., Suite F-4, Indianapolis, IN 46227, (317) 783-7474. □

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Classified advertisements are published as a service to members of the Indiana State Medical Association. Only ads considered to be of advantage to members will be accepted. Advertisements of a truly commercial nature (ie: firms selling brand products, services, etc.) will be considered for display advertising. All orders must be in writing and will automatically be set in regular classified type. Box numbers are not available.

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- \* Hospitals/health care facilities ...... 50¢/word (\$10 min.)
- \* Realtors/commercial recruitment and others.......75¢/word (\$15 min.)

Deadline: Six weeks preceding month of publication.

Payment procedure: Payment in advance is not required. Invoices and tearsheets are mailed to advertisers upon publication. INDIANA MEDICINE is issued on the 10th of each month.

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#### - ISMA MEMBERS -

### Mark Your Calendars!

The 1990 ISMA convention will be held Nov. 2-4 at the Radisson Hotel in Indianapolis.

Watch future issues for more information.

# Are you reading this ad?

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For additional information on how to place an ad, contact INDIANA MEDICINE, 3935 N. Meridian St., Indianapolis, IN 46208, (317) 925-7545 or 1-800-969-7545.

#### Advertising index

American Lung Association	487
Central Pharmaceuticals	498
Indiana Medical History Museum	506
International Tours	475
Lilly, Eli & Co.	461
Lincoln National LifeCo	ver
Medical Communicators	
Medical Protective	463
Palisades Pharmaceuticals	487
Physicians Billing Service of Indiana	481
Physicians' Directory	
Physicians Insurance Co. of IndianaCo	
G.D. Searle & Co	466
Spectrum Emergency Care	
Terre Haute Autoplex	
The Ear Institute	
U.S. Air Force	467
U.S. Army National Guard	473
Van Ausdall + FarrarCo	

In accepting advertising for publication, INDIANA MEDICINE has exercised reasonable precaution to ensure that only reputable, factual advertisements are included. However, we do not have facilities to make comprehensive or complete investigation, and the claims made by advertisers in behalf of goods, services, medicinal preparations, apparatus or physical appliances are to be regarded as those of the advertisers only. Neither sanction nor endorsement of such is warranted, stated or implied by the association.

## Are you moving?

	ddress to the Indiana State Medical Association, Membership Department, 3935 8, at least six weeks before you move.
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# For more information contact:

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# INDIANA MEDICINE

The Journal of the Indiana State Medical Association

August 1990

Vol. 83, No. 8

# GOVER MEN REINBURSEMEN

MALIANISAI SAILARE

Legislative Key Contact Program

# The Doctor's Insurance Company. In More Ways Than One.

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# INDIANA MEDICINE

The Journal of the Indiana State Medical Association

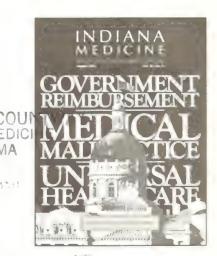
August 1990

Vol. 83, No. 8

#### scientific contributions

Flexor carpi radialis tunnel syndrome ......

in endometrial carcinoma	560
ir endomeniai carcinoma	THE FRANCIS A. C
Serum creatine kinase–BB and small	LIBRARY OF ME
cell anaplastic carcinoma of the lung:	BOSTON, N
Two case reports	4564
RADIOLOGY CLINIC	200 3 0 1
Mediastinal mass in a patient with lymphoma.	568
HAND CLINIC	



Cover story on page 572. Cover art by Diane Alfonso, Indianapolis.

#### \_features\_\_\_\_

Legislative key contacts play vital role in ISMA
In an effort to increase physician participation and visibility in legis-
lative activities, the Indiana State Medical Association is improving
and expanding its Key Contact program.

#### 

problem, one of communication and conflict management.

#### departments

stethoscope	549
from the museum	550
what's new	552
cme calendar	554
cme answers	567
drug names	577
recent court rulings	584
letter to the editor	586
auxiliary report	589
isma leadership	611
news briefs	612
obituaries	615
people	618
classifieds	620

# YOCON YOHIMBINE HCI

**Description:** Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubaceae and related trees Also in Rauwolfia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, odorless. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

Action: Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalmic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it; however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

**Indications:** Yocon\* is indicated as a sympathicolytic and mydriatric. It may have activity as an aphrodisiac

Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

**Adverse Reactions:** Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomitting are common after parenteral administration of the drug. <sup>1,2</sup> Also dizziness, headache, skin flushing reported when used orally. <sup>1,3</sup>

**Dosage and Administration:** Experimental dosage reported in treatment of erectile impotence.  $1.3.4\,^\circ$  1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to  $\frac{1}{2}$  tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.  $3\,^\circ$ 

**How Supplied:** Oral tablets of Yocon\* 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10

#### References:

- A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981
- Goodman, Gilman The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
- Weekly Urological Clinical letter, 27:2, July 4, 1983.
- A. Morales et al., The Journal of Urology 128: 45-47, 1982.

Rev. 1/85



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Advertising rates and data available upon request. INDIANA MEDICINE reserves the right to accept or reject advertising copy.

# ■ stethoscope

# ISMA invites health care organizations to summit

The Indiana State Medical Association has invited several health care organizations to attend a health care summit at the ISMA headquarters Wednesday, Sept. 26.

A result of the adoption of ISMA Resolution 89-21, the summit will bring together representatives of the health care industry to seek effective ways to decrease waste in health care spending while maintaining a high level of quality health care.

Among organizations invited to participate were: the Indiana Nursing Association, the Indiana Hospital Association, the Indiana University School of Medicine, the Indiana Dental Association, the Indiana Osteopathic Association, the Indiana Podiatric Medical Association, the Commission on State Health Policy and the Indiana Federation of Older Hoosiers. Representatives from management and labor also were invited.

# ISMA officers and staff meet with Indiana's congressional delegates

Indiana State Medical Association officers and staff members visited Washington, D.C., July 11 to discuss health care topics with Indiana representatives and senators.

George Rawls, M.D., president; William C. Van Ness, M.D., chairman of the board of trustees; C. Dyke Egnatz, M.D., speaker of the House of Delegates; Michael Mellinger, M.D., president-elect; Rick King, executive director; and Mike Abrams, director of marketing/legislation represented the ISMA. They met with Sen. Dan Coats' staff and Reps. Frank McCloskey, Dan Burton, Phil Sharp, Andy Jacobs and Pete Viscloskey.

Discussion topics were: recent CLIA regulations; Medicare financing; HR 4475, the Medicare anti-hassle legislation; and HR 4772, which repeals the requirement that physicians file all Medicare claims.

#### Indiana Medical Licensing Board reports 1989 actions

The following is a summary of the actions taken by the Indiana Medical Licensing Board during 1989 based on information provided to the ISMA: emergency suspensions, 19; revocations, 3; voluntary surrenders, 5; suspensions, 7; probations, 16; orders to show cause, 7; modifications of probation, 7; charges brought in 1989, still pending, 6; probationary appearances, 44; probationary reports, 172; and initial licensure application appearances, 19.

#### ISMA, IMPAC to sponsor political education seminar Sept. 26

There's still time to register for the Sept. 26 political education seminar sponsored by the Indiana State Medical Association and the Indiana Medical Political Action Committee. The seminar will be from 9:30 a.m. to noon at the Airport Holiday Inn in Indianapolis. Political analyst Charles E. Cook will conduct the seminar. Space is limited. To register, call Susan Grant, (317) 925-7545 or 1-800-969-7545.

# from the museum

During the last quarter of the 19th century, the medical school dissecting room often caught a newspaper reporter's eye. Part of the press coverage was pure sensationalism – articles focused on the macabre aspects of medicine to increase readership. Reporters equated the dissecting rooms with slaughterhouses and the students with butchers.

One New York reporter described a scene in a dissecting room: "This room, which although thoroughly ventilated, smells very much like a slaughterhouse, which it resembles in some respects. Headless, legless and armless bodies occupy some of the tables." An Indianapolis reporter noted that this type of coverage was "designed to fatten the popular prejudice against the profession."

Not all accounts of the dissecting room were designed to appeal to the public's morbid interests. Some reporters wrote about the dissecting room to dispel popular myths. Medical colleges promoted these facilities to convince prospective students that they were equipped with the most modern, state-of-the-art facilities.

The Medical College of Indiana, one of the early Indianapolis medical colleges, had anatomical rooms that were purported to be "among the finest in the country." In February 1880, an Indianapolis Journal reporter visited its dissecting room. He said, "The only manner in which the student can master the intricate system of bones, muscles, arteries, veins, nerves, etc. ... is by careful dissection, part by part, of the body itself." The reporter dispelled the notion that bodies were obtained illegally from local cemeteries, although they still were. He said

that with the passage of a law allowing paupers to be dissected, doctors no longer had to resort to grave robbing.

Students prepared the bodies for dissection by injecting arsenite of soda to prevent decomposition and red lead to distend and color the veins. The school assigned one cadaver to a class of five students. The cost of the cadaver to the group was \$25. After dissection, the bones could be resold for \$5 or \$6 to construct a skeleton.

Still photographs of dissecting rooms were relatively common and occasionally published in medical college promotional material. The rooms usually were illuminated by gaslight. The better dissecting rooms had stalls or closets where the medical students could change their clothes. The students, wearing long calico gowns, usually worked quietly by their cadavers. Most respected the corpses, although occasionally

a student would engage in a prank to break the monotony and drudgery of the work.

#### News from the museum

The museum would like to thank the following people for donating to the museum's operating support campaign (in addition to those listed in the July 1990 issue of INDIANA MEDICINE):

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Morgan E. Greene, M.D.
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David Wilson, M.D.

For more information on the Indiana Medical History Museum, contact the museum, 3000 W. Washington St., Indianapolis, IN 46222, (317) 635-7329. □



Dissecting room of the Medical College of Indiana, ca. 1905. Donated to the Indiana Medical History Museum by Robert S. Clauser.

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# what's new

The Eastman Kodak Co. has announced a new Kodak SureCell hCG-urine test kit for pregnancy that yields results in less than one minute. The new rapid test simplifies testing procedures, speeds results and provides accuracy to maximize testing productivity. Previously, tests took two minutes and involved more steps. The new test kits are available in 10-, 25- and 100-test kits.

Lederle Laboratories has introduced a new pelletized form of Minocin\*, the tetracycline derivative widely prescribed for the treatment of acne, respiratory infections, genitourinary infections and other sexually transmitted diseases. The tiny pellets, about the size of a printed period or a grain of sand, contain a matrix of cellulose, or plant fiber, embedded with molecules of minocycline hydrochloride. Oral Minocin achieves blood levels comparable to those achieved with intravenous administration.

ESCO Medical Instruments Inc. has developed a line of 100% disposable biopsy forceps that feature gold-plated metal cups. ESCO forceps are packaged in sterile peel-pouches, eliminating the additional expense and staff time to clean, repackage and ster-

ilize conventional biopsy forceps after each use.

Siemens Medical Systems Inc. has developed TurboFLASH, an ultra fast magnetic resonance imaging (MRI) technique for use with the MAGNETOM SP, its MRI system. With TurboFLASH, image acquisition times are reduced to 140 msec to 900 msec, making it possible to perform advanced magnetic resonance applications, such as brain and cardiac perfusion studies and ultra fast localizer imaging.

British-American Medical Inc. has introduced three new products. The Adjusaloc Intensive Care Support System is a fully adjustable and lockable respiratory circuit support system. It can be adjusted and locked for both height and angle, reducing discomfort or tracheal wall damage caused by dragging of the circuit. The VITAJET II Needleless Insulin Injector eliminates

News of what is new in the medical supply industry is composed of abstracts from news releases. Each item published does not necessarily constitute an endorsement of a product or recommendation for its use by INDIANA MEDICINE or by the Indiana State Medical Association.

needle trauma for diabetics because only the insulin penetrates the skin. It also features Crystal-Check, a clear chamber that allows you to see the insulin dosage. The new Hypo-Let Automatic Lancet Device for Capillary Blood Sampling features inexpensive depth control tips in various sizes. It also can be used with standard size lancets from other manufacturers.

The Hewlett Packard Co. has introduced a fetal monitor that addresses antepartum and intrapartum high-risk monitoring applications. The new HP M1350A fetal monitor is designed primarily for hospital obstetrical departments. It is an extension of Hewlett Packard's current line of antepartum and intrapartum monitors.

The Eastman Kodak Co. has developed a new Kodak SureCell chlamydia test kit that gives accurate, reliable results in nine minutes. Sampling methods include endocervical swabs, male urine, male urethral swabs, ocular swabs and cytology brushes. The test is based on monoclonal antibodybased enzyme-linked immunosorbant assay methodology. The test detects lipopolysaccharide antigen from the cell wall of *chlamydia trachomatis*, psittaci and TWAR.



Because safety cannot be taken for granted in H<sub>2</sub>-antagonist therapy

#### Minimal potential for drug interactions

nizatidine

Unlike cimetidine and ranitidine.1 Axid does not inhibit the cytochrome P-450 metabolizing enzyme system.<sup>2</sup>

#### Swift and effective H<sub>2</sub>-antagonist therapy

- Most patients experience pain relief with the first dose3
- Heals duodenal ulcer rapidly and effectively 4,5
- Dosage for adults with active duodenal ulcer is 300 mg once nightly (150 mg b.i.d. is also available)

- USP DI Update, September/October 1988, p 120

- 9 Br J Clin Pharmacol 1985, 20 710-713
  9 Data on file, Lilly Research Laboratories
  4. Scand J Gastroenterol 1987, 22(suppl 136) 61-70
  5. Am J Gastroenterol 1989, 84 769-774

#### AXID "

nizatidine capsules

Brief Summary. Consult the package literature for complete information.

Indications and Usage: 1. Active duodenal ulcer—for up to eight weeks of treatment. Most patients heal within four weeks
2. Maintenance therapy—for healed duodenal ulcer patients at a reduced dosage of 150 mg his. The consequences of therapy with Axid for longer than one year are not known

Contraindication: Known hypersensitivity to the drug. Use with caution in patients with hypersensitivity to other H<sub>2</sub>-receptor antagonists

Precautions: General—1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy
2. Dosage should be reduced in patients with moderate to severe

3. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal

Laboratory Tests - False-positive tests for urobilinogen with Multistix\*

Drug Interactions — No interactions have been observed with theophyl-

may occur during therapy Drug Interactions. No interactions have been observed with theophyline, chlordiazepoxide, lorazepam, Idocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450 enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,300 mg) of aspirin daily, increased serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

Carcinogenesis, Mutagenesis, Impairment of Ferthity—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) ehowed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromatin-like (ECL) cells in the gastric oxynhic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the tiver were increased in the high-dose alies as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given occurrence of a marginal finding at high dose only in animals given

Axid\* (nizatidine, Lilly)

excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid

potential for Axid Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test. In a two-generation, perinatal and postnatal fertility study in rats, doses of nizalidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny. Pregnancy—Teratogenic Effects—Pregnancy Category C—Oral reproduction studies in rats at doses up to 300 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intra-view of the prognant New Zealand White rabbits, inzatidine venous administration to pregnant New Zealand White rabbits, nizabidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced arch, and cuareous evental in one feuts, and at 30 mg/kg, it produces ventricular anomaly, distended abdomen, spina brilda, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatione can cause letal harm when administered to a pregnant woman or can affect reproduction capacity. Nizadime should be used during pregnancy only if the potential benefit justifies the potential risk to

the letus Nursing Mothers—Studies in factating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated factating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother Pediatric Use—Safety and effectiveness in children have not been established.

Use in Elderly Patients—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizalitione. Elderly patients may have reduced

Adverse Reactions: Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatione patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with inizalidine. It was not possible to determine whether a variety of less common events was due to the drug

Axid\* (nizatidine, Lilly)

Hepatic - Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to inizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was > 2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitiss and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

Cardiovascular – In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects

CNS—Rare cases of reversible mental confusion have been reported Endocrine—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been

reported rarely

Hematologic—Fatal thrombocytopenia was reported in a patient
treated with nizatidine and another H<sub>2</sub>-receptor antagonist. This patient
had previously experienced thrombocytopenia while taking other drugs.
Rare cases of thrombocytopenic purpura have been reported.

Integumental—Sweating and urticaria were reported significantly
more frequently in nizatidine—than in placebo-treated patients. Rash and
exfoliative dermabits were also reported.

Hypersensitivity—As with other H<sub>2</sub>-receptor antagonists, rare cases of
Apparatus tolknown participies administration have been reported.

anaphylaxis following nizatidine administration have been reported Because cross-sensitivity among this class has been observed, H<sub>2</sub>-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been

Other-Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been

Overdosage: Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%<sub>0</sub>.

Additional information available to the profession on request



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Axid\* (nizatidine, Lilly)

## cme calendar

#### Methodist Hospital

Methodist Hospital of Indiana will sponsor the following CME courses:

Aug. 30-Sept. 2 - Eighth World Congress on Endourology & E.S.W.L., Hyatt Regency, Washington, D.C.

Sept. 15 – Management of Silent Ischemia, Hyatt Regency, Indianapolis

Oct. 5-6 – Advanced Cardiac Life Support, Methodist Hospital of Indiana, Wile Hall, Indianapolis.

Oct. 18-19 – 11th Annual Harold C. Ochsner Radiology Lectureship, Methodist Hospital of Indiana, Indianapolis.

Nov. 7 – Ninth Annual Pediatric Critical Care
Symposium: Pediatric Critical Care
Pharmacology,
Methodist Hospital,
Wile Hall, Room 320,
Indianapolis.

Nov. 7 — Practical Topics in the Care of the Elderly: Lester Bibler Day, Methodist Hospital, Petticrew Auditorium, Indianapolis.

Methodist Hospital also will sponsor "Physician Well Being" Sept. 19 from 7:30 a.m. to 3:15 p.m. in the Petticrew Auditorium. Program speakers include John H. Pfifferling, Ph.D., Sara Charles, M.D., and John Hayes, M.D. This course will help physicians identify and cope with stress. It is designed for all physicians.

For more information, call Dixie Estridge, (317) 929-3733.

#### St. Vincent Hospital

St. Vincent Hospital and Health Care Center in Indianapolis will sponsor these CME courses:

Sept. 12-14— Cardiopulmonary Rehabilitation Symposium, Hilton-onthe-Circle, Indianapolis.

Oct. 5 – Richter Day, Radisson Hotel, Indianapolis.

For information, call Beth Hartauer, assistant coordinator, Medical Education, (317) 871-3460.

#### Indiana University

The Indiana University School of Medicine will sponsor the following courses:

Sept. 12 – Review of Pediatric Infectious Disease, Downtown Hyatt Regency Hotel, Indianapolis.

Sept. 13 – Medical Educational Resources Program Anxiety Disorders Teleconference, University Place Executive Conference Center and Hotel, Indianapolis.

Sept. 14 – Sleep Disorders Program, University
Place Executive Conference Center and
Hotel, Indianapolis.

Sept. 21 – Tri-State Craniofacial Conference, University Place Executive Conference Center and Hotel, Indianapolis.

Sept. 20-22– 12th Annual Conference on Interdisciplinary Health Care Team, University Place Executive Conference Center and Hotel, Indianapolis.

Sept. 24-26– Echocardiography in Coronary Artery Disease, University Place Executive Conference Center and Hotel, Indianapolis.

Sept. 27 – Gastroenterology
 Update 1990, University Place Executive
 Conference Center
 and Hotel, Indianapolis.

Oct. 1-4 – Clinical Electrocardiography: Cardiovascular Board Review, Indianapolis.

Oct. 12 – Indiana Neonatal
Society Meeting,
University Place
Executive Conference Center and
Hotel, Indianapolis.

Oct. 23-24 – 18th Annual Fall
Symposium, Care of the Seriously Ill
Child, University
Place Executive Conference Center and Hotel, Indianapolis.

For information, call Melody Dian, (317) 274-8353.

#### St. Mary's Medical Center

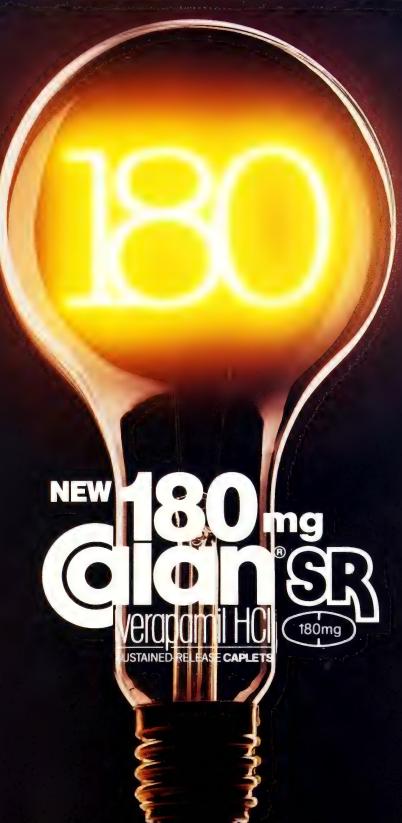
St. Mary's Medical Center in Evansville will sponsor the following CME courses:

Sept. 13 – Joseph E. Coleman Pediatric Seminar, Pediatric Physique, St. Mary's Medical Center Amphitheatre, Evansville.

Sept. 20 – Entering 21st Century in Cancer Therapy, Tri-State Radiation and Oncology Center, Evansville.

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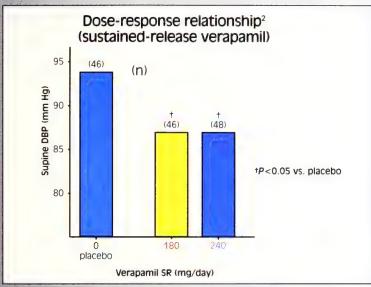
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#### **BRIEF SUMMARY**

Contraindications: Severe LV dysfunction (see *Warnings*), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block (if no pacemaker is present), atrial flutter/fibrillation with an accessory bypass tract (eg. WPW or LGL syndromes), hypersensitivity to verapamil.

Warnings: Verapamil should be avoided in patients with severe LV dysfunction (eg, ejection

Warnings: Verapamil should be avoided in patients with severe LV dysfunction (eg, ejection fraction < 30%) or moderate to severe symptoms of cardiac failure and in patients with any degree of ventricular dysfunction if they are receiving a beta-blocker. Control milder heart failure with optimum digitalization and/or diuretics before Calan SR is used. Verapamil may occasionally produce hypotension. Elevations of liver enzymes have been reported. Several cases have been demonstrated to be produced by verapamil. Periodic monitoring of liver function in patients on verapamil is prudent. Some patients with paroxysmal and/or chronic atrial flutter/fibrillation and an accessory AV pathway (eg, WPW or LGL syndromes) have developed an increased antegrade conduction across the accessory pathway bypassing the AV node, producing a very rapid ventricular response or ventricular fibrillation after receiving I.V. verapamil (or digitalis). Because of this risk, oral verapamil is contraindicated in such patients. AV block may occur (2nd- and 3rd-degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with verapamil.

Precautions: Verapamil should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage Verapamil may decrease neuromuscular transmission in patients with Duchenne's muscular dystrophy and may prolong recovery from the neuromuscular blocking agent vecuronium. It may be necessary to decrease verapamil dosage in patients with attenuated neuromuscular transmission. Combined therapy with beta-adrenergic blockers and verapamil may result in additive negative effects on heart rate, atrioventricular conduction and/or cardiac contractility; there have been reports of excessive bradycardia and AV block, including complete heart block. The risks of such combined therapy may outweigh the benefits. The combination should be used only with caution and close monitoring. Decreased metoprolol clearance may occur with combined use. Chronic verapamil treatment can increase serum digoxin levels by 50% to 75% during the first week of therapy, which can result in digitalis toxicity. In patients with hepatic cirrhosis, verapamil may reduce total body clearance and extrarenal clearance of digitoxin. The digoxin dose should be reduced when verapamil is given, and the patient carefully monitored. Verapamil will usually have an additive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after verapamil administration

Concomitant use of flecainide and verapamil may have additive effects on myocardial contractility, AV conduction, and repolarization. Combined verapamil and quinidine therapy in patients with hypertrophic cardiomyopathy should be avoided, since significant hypotension may result. Concomitant use of lithium and verapamil may result in a lowering of serum lithium levels or increased sensitivity to lithium. Patients receiving both drugs must be monitored carefully. Verapamil may increase carbamazepine concentrations during combined use. Rifampin may reduce verapamil bioavailability. Phenobarbital may increase verapamil clearance. Verapamil may increase serum levels of cyclosporin. Concomitant use of inhalation anesthetics and calcium antagonists needs careful titration to avoid excessive cardiovascular depression. Verapamil may potentiate the activity of neuromuscular blocking agents (curare-like and depolarizing); dosage reduction may be required. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. Pregnancy Category C. There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. Verapamil is excreted in breast milk; therefore, nursing should be discontinued during verapamil use.

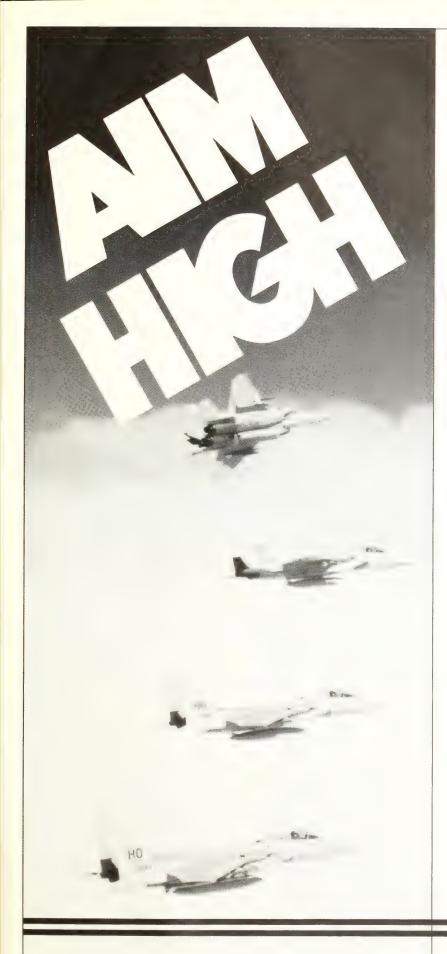
Adverse Reactions: Constipation (7.3%), dizziness (3.3%), nausea (2.7%), hypotension (2.5%), headache (2.2%), edema (1.9%), CHF, pulmonary edema (1.8%), fatigue (1.7%), dyspnea (1.4%), bradycardia: HR < 50/min (1.4%), AV block: total 1°,2°,3° (1.2%), 2° and 3° (0.8%), rash (1.2%), flushing (0.6%), elevated liver enzymes. The following reactions, reported in 1.0% or less of patients, occurred under conditions where a causal relationship is uncertain: angina pectons, atrioventricular dissociation, chest pain, claudication, myocardial infarction, palpitations, purpura (vasculitis), syncope, diarrhea, dry mouth, gastrointestinal distress, gingival hyperplasia, ecchymosis or brusing, cerebrovascular accident, confusion, equilibrium disorders, insomnia, muscle cramps, paresthesia, psychotic symptoms, shakiness, somnolence, arthralgia and rash, exanthema, hair loss, hyperkeratosis, macules, sweating, urticaria, Stevens-Johnson syndrome, erythema multiforme, blurred vision, gynecomastia, increased urination, spotty menstruation, impotence.

### References:

- 1. 1988 Joint National Committee: The 1988 report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure. Arch Intern Med 1988;148:1023-1038.
- 2. Data on file, G.D. Searle & Co.

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# Adjuvant radiation therapy in endometrial carcinoma

Peter Garrett, M.D. Newell Pugh, M.D. David Ross, M.D. William Rate, M.D.

arcinoma of the endometrium is now the most common malignancy arising from the female genital tract. It most commonly arises in postmenopausal women and is occurring more frequently. Most patients develop a tumor confined to the uterus itself. Surgery with total abdominal hysterectomy and bilateral salpingo-oophorectomy is the mainstay of therapy.

Poor prognostic factors include deep myometrial invasion, high-grade lesions, enlarged uterus and extra uterine spread.2 In these patients, the risk of pelvic nodal involvement is significant, and adjuvant radiation therapy given either preoperatively or postoperatively has been advo-

cated.

The results of our treatment at Methodist Hospital of Indiana have been reviewed to determine the risk of pelvic recurrence following radiation therapy.

Materials and methods

Between 1983 and 1987, 84 patients were identified from Methodist Hospital's tumor registry with a diagnosis of uterine malignancy. Two patients had concurrent primary lesions elsewhere, and two patients had a diagnosis

### Abstract

Between 1983 and 1987, 79 patients received radiation therapy in combination with surgery for cancer of the endometrium. The pathology in all cases was adenocarcinoma. Most cases had deep myometrial penetration with moderate or poor differentiation. More than two-thirds of the patients had stage I disease. Twenty-two patients received preoperative radiation, and 57 patients received radiation following surgery. There were 10 recurrences in the 79 patients treated. Most recurrences were from distant disease, and there was only one case of an isolated pelvic recurrence. Adjuvant radiation is well-tolerated, and the failure rate in the pelvis is low, even with aggressive lesions.

of uterine sarcoma. One patient was treated with a radiation implant alone.

Seventy-nine patients were reviewed who received either preoperative or postoperative external beam radiation combined with hysterectomy. The median age was 67 years, ranging from 36 to 90 years. All patients underwent a hysterectomy with a concurrent salpingo-oophorectomy. One patient had a vaginal hysterectomy, and the remaining patients had abdominal hysterectomies.

The ovaries were removed in all cases, and the pathology was adenocarcinoma in all cases. Tumor grade was well-differentiated in 16 patients, moderately differentiated in 44 and poorly differentiated in 18. In one case, the grade was unknown. Myometrial invasion was superficial (less than 50%) in 19 patients and deep

(greater than or equal to 50%) in 55. In five patients, the depth of myometrial invasion was not stated. Table 1 summarizes the relationship between depth of myometrial invasion and tumor grade.

This staging system has been used by the International Federation of Gynecology and Obstetrics (Table 2).4 Most patients had stage I disease. Twenty-seven were stage IA, and 28 were IB. Nine patients were in stage II, and nine patients were in stage III. Six stage IV patients had tumors outside the true pelvis.

All patients were treated with external beam megavoltage radiation. From 1983 to 1986, patients were treated with 10 MV photons, and after 1986, patients were treated with 18 MV photons. The median dose was 4,500 centigray with a range of 3,400 centrigray to 5,040 centigray. The tumor volume included the whole pelvis in all cases. Eight patients were treated with parallel opposed fields, and 71 patients were treated with a four-field pelvic technique. All patients had individualized cerrobend blocks made to spare as much normal tissue as possible, and computer generated isodose plans were used for all patients.

Preoperative radiation was given to 22 patients, and the remaining 57 patients had their radiation following surgery. Table 3 shows a breakdown of stage and radiation therapy. The use of a concurrent radiation implant was done on an individual basis. Most patients did not have an implant performed. One stage IB patient, one stage III patient and one stage IV patient had implants. Three of the stage II patients with cervix involvement had radiation implants. No patients with stage IA disease had an implant performed.

One patient was lost at follow-up. She was last seen three months after completing her radiation therapy, and at that time, she had no disease. She was not included in the analyses of recurrence.

### Results

The use of radiation and surgery results in a low risk of pelvic recurrence. Only one case of an isolated pelvic recurrence was noted. This occurred in a patient with a poorly differentiated lesion 18 months after the completion of radiation. She had a pelvic mass with disease at the apex of the vagina extending down to the rectal region.

There was one case of combined recurrence with loco-regional disease within the pelvis, as well as distant disease in the abdomen and lung. There were eight cases of distant metastases alone. The most common site of distant failure was the lung.

Failure for stage I disease was uncommon (*Table 4*). Only three of 54 patients treated for stage I

disease subsequently had disease. Recurrence also was more common in patients with advanced disease and was most frequently distant.

Relapse by tumor grade and depth of myometrial involvement

### Table 1

# Tumor grade vs. depth of myometrial involvement

Grade Well	Superficial	<u>Depth</u> <b>Deep</b>	Unknown
	10		
	3		
Unknown			1

### Table 2

# International Federation of Gynecology& Obstetrics staging of endometrial cancer

Definition
Carcinoma confined to the corpus
Uterine cavity 8 cm or less in its greatest length
Uterine cavity more than 8 cm in its greatest length
Carcinoma involving the cervix but not extending out-
side the uterus
Carcinoma extending outside the uterus, including
spread to the vagina, but remaining within the true
pelvis
Carcinoma involving the mucosa of the bladder or
rectum and/or extending beyond the true pelvis
Spread to distant organs

## Table 3

### Timing of radiation vs. tumor stage

	Radiation therapy	
		Postoperative
IA	2	25
IB	11	17
II	5	4
III	2	7
IV	2	4
Total	22	57

is given in *Table 5*. No relapses occurred among the patients with well-differentiated tumors. There was no significant difference between the number of relapses in those patients treated with preoperative radiation versus postoperative radiation. Four relapses occurred in the 22 patients treated preoperatively and six in the 56 treated postoperatively.

Only six implants were done. Five were performed preoperatively, and no relapses were observed in these patients. One implant was done postoperatively with one relapse, resulting in a total of one of six implant patients

relapsing.

The overall recurrence free survival at three years was 87%. Both preoperative and postoperative treatments were well-tolerated by patients. Mild diarrhea was common during the course of radiation therapy. Only one major complication of bowel obstruction occurred after radiation but was successfully treated surgically.

### Discussion

Adenocarcinoma of the endometrium is a common cancer in postmenopausal women. This disease is best treated with surgery and is curable in early stages. High-grade lesions and disease invading the uterine wall have a poorer prognosis, and adjuvant radiation

### Table 4

# Site of recurrence for all patients treated

Site of recurrence	Number
Pelvis alone	1
Pelvis and distant	1
Distant alone	8

## Table 5

## Recurrence by tumor characteristics

		Depth	
	Superficial		
Well	0/5	0/9	0/1
Moderate	2/10	5/33	0/1
Poor	1/3	2/13	0/2
Unknown			0/1

is indicated in that setting.

There is no difference in the recurrence rate between preoperative or postoperative irradiation. The use of postoperative radiation allows the tissue to be examined, unaltered by radiation therapy. A physician then can determine the patients who would benefit from postoperative radiation. Those patients whose pathology is moderately differentiated or poorly differentiated or have greater than 50% involvement of the myometrial wall require further treatment. The risk of pelvic recurrence is very low after adjuvant radiation.

Some studies have advocated the routine use of intracavitary radiation in addition to external beam therapy.<sup>3</sup> This was not done routinely at our center but was done on an individual basis. Most stage I patients did not have an implant performed, and we saw only one pelvic failure in the stage I patients.

Despite the good results in radiation of the pelvis, we still saw a significant distant failure rate in patients with stage II-IV disease. Future studies need to identify those patients with a high risk of distant failure. The routine use of peritoneal cytology may help identify a subgroup of patients at risk for failure beyond the pelvis.<sup>5</sup> The use of whole

abdominal radiation or hormonal therapy or chemotherapy may be indicated in such patients. Due to the many medical problems associated with these patients, such as diabetes, hypertension and obesity, clinical studies should address the further treatment of high-risk patients with systemic therapy.  $\square$ 

The authors are with the Department of Radiation Therapy at Methodist Hospital of Indiana in Indianapolis.

Correspondence and reprints: Peter Garrett, M.D., Department of Radiation Therapy, Methodist Hospital of Indiana, 1701 N. Senate Blvd., Indianapolis, IN 46202.

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5. Creasman WT, Saia PJ, Blessing J, et al: Prognostic significance of peritoneal cytology in patients with endometrial cancer and preliminary data concerning therapy with intraperitoneal radiopharmaceuticals. *Am J Obstet Gynecol*, 141:92, 1981

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# Serum creatine kinase-BB and small cell anaplastic carcinoma of the lung:

# Two case reports

Thomas A. Webb, M.D. Timothy T. Dick, M.A. Kenneth E. Blick, Ph.D. Charles M. Sinn, M.D.

reatine kinase isoenzyme BB (CK-BB) is seldom encountered in clinical serum samples by commonly employed clinical laboratory methods. Despite being considered "brain type" CK isoenzyme, even severe cerebral ischemia or infarction usually does not result in circulating CK-BB. Occasionally in our clinical experience, CK-BB has been associated with patients in profound shock states. CK-BB is present with virtually all tissues and organs to varying degrees,<sup>1,2,3</sup> and presumably the source of CK-BB detectable in serum is from the substantial amount of ischemic tissues in circumstances of profound shock.

Several recent reports also have raised the possibility that the presence of CK-BB in the serum could represent a tumor marker for a variety of malignancies, 3-8 including tumors of the prostate, breast, stomach, kidney and lung.

The two cases presented in this article discuss patients with contrasting levels of detectable

## Abstract

Recent reports have suggested that serum creatine kinase isoenzyme BB (CK-BB) may be used as a tumor marker for a variety of malignancies, particularly prostatic carcinoma.

Two cases of small cell anaplastic carcinoma of the lung (SCAC) had markedly contrasting levels of CK-BB by serum electrophoresis. Retrospective analysis of the index cases, and four additional autopsy cases of SCAC, included: 1) quantitation of CK-B in postmortem tumor and adjacent non-tumor lung tissue; 2) enzymatic and radioimmunoassay serum levels of CK-B; and 3) CK-B immunoperoxidase staining of tumor and non-tumor tissues for CK-B.

Serum CK-BB is a non-specific tumor marker, but its presence, in whatever amount, should alert the clinician to the possibility of an associated malignancy, particularly SCAC or metastatic carcinoma.

serum CK-BB and metastatic small cell anaplastic carcinoma (SCAC) of the lung. The tumor tissues of these two cases and four additional cases of SCAC of the lung were analyzed and compared with adjacent non-tumor lung tissue, as obtained at postmortem examination. In addition, attempts were made to use immunoperoxidase methods to demonstrate the presence of CK-B and carcinoembryonic antigen (CEA) within the tumor cells.

Case A A 76-year-old man was hospital-

ized after an acute exacerbation of back pain and fatigue for several weeks. For several months, the patient had increasing dyspnea clinically related to idiopathic, interstitial pulmonary fibrosis. Dyspnea also had been related to congestive heart failure, secondary to arteriosclerotic coronary artery disease. The patient's smoking history was not available.

Radiographs of the spine and bone scan were negative, and the initial clinical impression was lumbar intervertebral disc syndrome. A chest x-ray demonstrated cardiac enlargement, evidence of bilateral pulmonary fibrosis and possible pleural effusions.

Laboratory studies showed a markedly elevated serum lactic dehydrogenase (LDH) of 4950 U/L and CK of 373 U/L. CK serum electrophoresis demonstrated a markedly elevated CK-BB, including occult malignancy. Because of rapidly progressive obtundation, a central nervous system lesion also was considered possible. The patient unexpectedly became comatose and died one week after admission.

Postmorten examination demonstrated widespread metastases from a small cell anaplastic carcinoma of the left lung. The tumor involved mediastinal lymph nodes, liver, bone and adrenal glands. No other malignancies were encountered, and examination of the brain was unremarkable.

### Case B

A 68-year-old woman was hospitalized with a two-week history of painless, gross hematuria. She had a 100-pack per year history of cigarette smoking.

An intravenous pyelogram demonstrated a large mass arising from the upper pole of the left kidney. A chest x-ray showed a probable right pleural effusion and a suggestion of right mediastinal and right pulmonary hilar masses.

Bronchoscopy demonstrated a diffuse submucosal lesion involving the right mainstem bronchus. Bronchial cytologies and biopsies were non-diagnostic.

The patient experienced increasing respiratory distress and died six days after admission. Postmorten examination revealed widespread metastases of a small cell anaplastic carcinoma, interme-

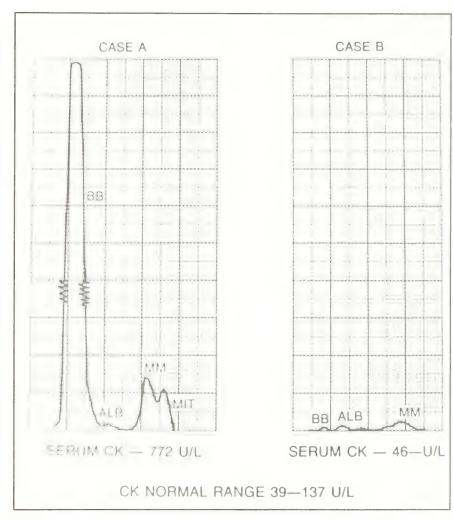


Figure 1: CK serum isoenzyme electrophoretic pattern – schematic drawings reflecting densitometer tracings of patterns visualized under fluorescent lighting. MIT = mitochondrial fraction. ALB = albumin.

diate cell variant, of the right lung, involving mediastinal tissues, the left lung, adrenals, the liver, the pancreas and the left kidney. Permission to examine the brain was not granted.

### Methods

Electrophoretic separation of serum CK isoenzymes of case A and case B was performed on cellulose acetate plates at 300 volts for 10

minutes. A Tris Barbitol-Sodium Barbitol Buffer (pH 8.6-9.0) was used.

In addition to electrophoretic separation, the serum from case A was measured for immunoreactive CK-B via a radioimmunoassay (RIA) technique (Mallincroktt, Inc., St. Louis, Mo.).

After electrophoretic and RIA analysis, normal and malignant lung tissue from cases B-F and

only malignant tissue from case A were deparaffinized in xylene and rehydrated in alcohol and water. The tumor and non-tumor pulmonary tissues were separated by case and homogenized. The homogenate was centrifuged, and 100 uL of supernatant was removed and assayed for CK-BB, using the RIA method. All radioactivity was measured by a scintillation counter (Beckman Gamma 4000, Beckman Instruments, Inc., Irvine, Calif.).

In addition to the two cases of small cell anaplastic carcinoma of the lung having CK isoenzyme studies demonstrating CK-BB, four other cases of small cell carcinoma were taken from the autopsy files of Deaconess Hospital from January 1980 through January 1981. These patients, C through F, had not had CK isoenzymes performed during their last hospital admissions.

All autopsy histological slides from these six cases were reviewed, and each case had histological features diagnostic for SCAC of the lung. Review of the slides from each case allowed selection of paraffin blocks from which tissues could be retrieved for chemical analyses for CK-B. In addition, paraffin blocks were selected for attempts at immunoperoxidase staining of CK-B using the avidin biotin complex method (courtesy of Robert Weimer, M.D., Immunon, Immunohistochemical Staining Service, Utica, Mich.). Sections were made to include the tumor and adjacent non-tumor involved lung tissues, and staining for CK-B was performed in five of the six autopsy cases of small cell anaplastic carcinoma of the lung (except case E). Immunoperoxidase staining also was done for CEA. The autopsy tissues had been fixed in 10% buffered formalin, and the tissues had been embedded in paraffin for between two and one-half and three and one-half years before attempts at immunoperoxidase staining.

### Results

Figure 1 depicts the schematic drawings of the electrophoretic separation of the CK isoenzymes for case A and case B. These drawings reflect densitometer tracings of the isoenzymes as they are visually observed under fluorescent lighting. Case A shows a large CK-BB peak, and case B reveals a trace CK-BB peak. Subsequent RIA of serum from case A exhibited a level of 76.1 ng/mL (normal range as determined by our laboratory, 0.5 to 6.5 ng/mL).

Results of the tissue homogenization experiment, shown in Figure 2, generally portray a significant increase in CK-B levels of malignant tissue over that of normal tissue, case B being the sole exception. Statistical analysis of the five cases with normal and malignant materials shows a mean of 136.7 ng CK-B/g malignant tissue and 48.2 ng CK-B/g normal tissue. A calculation of the correlation from ungrouped data yielded a coefficient of 0.60. Computation of the statistical difference between the means with unequal variances resulted in a T value of 1.35 (T critical of 2.78, P = .05).

In none of the five autopsy cases was there unequivocal immunoperoxidase staining for CK-B in either the tumor or the non-

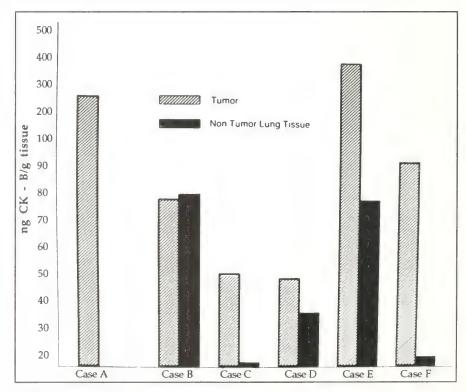


Figure 2: CK isoenzyme B levels in tumor and non-tumor lung tissue.

tumor lung tissue. CEA staining patterns in the control tissues were consistently, though weakly, present in alveolar macrophages. Rare tumor areas were considered positive for CEA in section of cases B and C.

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# July CME quiz answers

The following letters are the answers to the CME quiz that appeared in the July 1990 issue: "The management and treatment of an abnormal Pap smear."

1. c 6. d 2. c 7. e 3. b 8. a 4. a 9. c 5. b 10. b

# Mediastinal mass in a patient with lymphoma

Eric M. Walser, M.D. Indianapolis

After multiple polyps were discovered in a routine barium enema in 1987, a 72-year-old black man underwent laparotomy for a hemicolectomy. Pathologic analysis of mesenteric lymph nodes disclosed unsuspected non-Hodgkin's lymphoma, and a more extensive resection subsequently was performed.

Å routine chest x-ray three years later revealed a well-defined superior mediastinal mass to the right of the trachea (Figure 1). Non-contrasted computed tomography (CT) of the chest demonstrated an uncalcified, lobulated mass that was anterior to the trachea and appeared contiguous

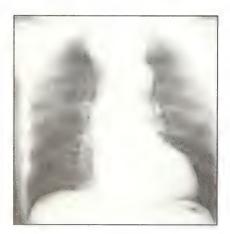


Figure 1: Chest x-ray shows a well-defined right-sided superior mediastinal mass with mild mass effect on the upper trachea.

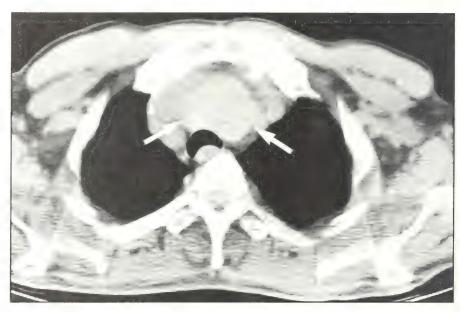


Figure 2: Non-contrasted CT of the thorax shows a mass anterior to the trachea. The mass contains areas of high and low density and is continuous with the cervical thyroid (arrows).

with the inferior thyroid gland (Figure 2). Because the CT findings suggested intrathoracic goiter, iodine-131 scintigraphy was performed, and these images confirmed the presence of substernal thyroid tissue (Figure 3).

## Discussion

The differential diagnosis of a mass in the superior mediastinum (above a horizontal line from the inferior edge of the manubrium) includes intrathoracic goiter, a tortuous innominate artery, lymph nodes (from lymphoma or granulomatous disease), a thymic mass or an aneurysm of the ascending aorta. In infants, this list also

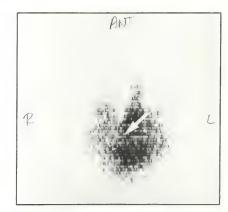


Figure 3: Iodine-131 scintiscan of the anterior thorax demonstrates substernal extension of a multinodular goiter (arrow points to suprasternal notch).

would include thymus and cystic

hygroma.

Intrathoracic goiter generally is defined as thyroid tissue extending below the suprasternal notch and has been identified in 0.2% to 15% of thyroidectomy specimens. This condition is the most common etiology of superior mediastinal masses in adults. The most frequent symptom is neck swelling, although patients occasionally complain of exertional dyspnea, chronic cough and, rarely, dysphagia or dyspnea when supine.3 Very large goiters may cause superior vena cava syndrome, hoarseness secondary to recurrent laryngeal nerve compression, or chylothorax from thoracic duct obstruction.3 Often, the mass is an incidental finding.

The chest x-ray shows a discrete superior mediastinal mass, usually to the right of the trachea, often displacing the superior trachea and larynx to the opposite side. On both the posterior-anterior and the lateral films, the lesion appears to extend into the chest from the thoracic inlet. CT scans demonstrate an inhomogenous mass that is continuous with the cervical thyroid, has well-defined borders and usually lies anterior to the trachea. Other common findings are focal calcifications and areas of high density on non-contrasted studies (due to the iodine content of thyroid tissue).4

Iodine-131 scintigraphy of the neck and upper thorax confirms the extension of thyroid tissue below the suprasternal notch. Despite previous reports that intrathoracic goiters usually are non-functional, recent studies have detected them with more than 90% sensitivity.5 If CT is performed before iodine-131 scans, contrast should be avoided because quantitative thyroid uptake is lowered artificially after intravenous infusion of iodinecontaining contrast. Evaluation of thyroid uptake is important because an occasional intrathoracic goiter will be hyperfunctional.3

Management

Asymptomatic patients with non-toxic goiters extending into the thorax can be managed conservatively. Increasing size observed on chest x-ray or by development of symptoms is an indication for surgery. This patient chose non-surgical management and receives periodic chest x-rays for follow-up.

Some physicians advocate resection of all intrathoracic goiters, citing a 7.2% incidence of malignancy and the possibility of acute, life-threatening dyspnea from hemorrhage or inflammation in the already enlarged gland. Surgical approach is through a cervical incision, although large goiters require a partial or complete sternotomy for complete resection.

#### Conclusion

Intrathoracic goiter often is responsible for superior mediastinal masses in adults. However, other causes must be excluded in patients with these masses, particularly if metastasis from a known primary is suspected. A simple imaging approach, using CT and nuclear medicine, allows prompt recognition and evaluation of intrathoracic goiter.

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# Flexor carpi radialis tunnel syndrome

Richard S. Idler, M.D. James W. Strickland, M.D. James J. Creighton Jr., M.D. Indianapolis

A tendon is lined by a tissue called tenosynovium at any site where a tendon must change direction or is in contact with an immobile structure. This doublewalled sac of synovial-like tissue helps to reduce friction at these sites. The upper extremity has many sites where tendons are lined with tenosynovium. One such site is the flexor carpi radialis tunnel.

The flexor carpi radialis muscle originates at the medial epicondyle and inserts into the palmar base of the second metacarpal. It crosses the wrist along its palmar radial aspect, passing over the distal pole of the scaphoid and along the ridge of the trapezium (Figures 1 and 2). The tendon at this site lies outside the carpal tunnel in its own fibroosseous sheath, referred to as the flexor carpi radialis tunnel. At this site, the tendon is lined with tenosynovium. Overuse of the wrist or direct trauma to this area may produce inflammation of the tenosynovium, called flexor carpi radialis tunnel syndrome.

The diagnosis of flexor carpi radialis tunnel syndrome is made by a history of repetitive activity or direct trauma leading to complaints of pain involving the pal-

mar radial aspect of the wrist. Examination of this area may demonstrate visible or palpable enlargement at the entrance of the tunnel. Discomfort over the flexor carpi radialis tunnel may be exacerbated by passive wrist extension with compression over the entrance of the tunnel. Discomfort along the course of the flexor carpi radialis tendon and at its site of entrance into the tunnel may be exacerbated by resisted wrist flexion. The differential diagnosis for pain involving the palmar radial wrist includes basilar joint arthritis of the thumb, scaphoid fracture, rotatory subluxation of the scaphoid, scapho trapezial trapezoid arthritis, tenosynovitis of the first dorsal compartment (de Quervain's) and volar carpal ganglions. To thoroughly evaluate flexor carpi radialis tunnel syndrome, posterioranterior and lateral radiographs of the wrist are indicated.

Most patients with flexor carpi radialis tunnel syndrome will improve with cessation of provocative activities and, if necessary, splint immobilization of the wrist and non-steroidal anti-inflammatory medication. Persistent cases may benefit from a local cortisone injection of the tunnel; however, patients with attritic injuries of the flexor carpi radialis tendon who receive repetitive cortisone injections may experience tendon rupture. If tendon rupture occurs, it may result in a

resolution of discomfort, and the flexor carpi radialis is a frequently used tendon transfer with little functional impairment of the extremity.

Should conservative management fail to resolve the syndrome, decompression of the flexor carpi radialis tunnel may be required. This is usually performed under a regional anesthetic. A linear or zigzag incision is made along the course of the flexor carpi radialis tendon at the wrist. Care must be taken not to extend the incision toward the ulna at the level of the wrist flexion crease for fear of injury to the palmar cutaneous branch of the median nerve. The flexor carpi radialis tunnel is decompressed by releasing the proximal fibrous portion of the tunnel and removing the osseous

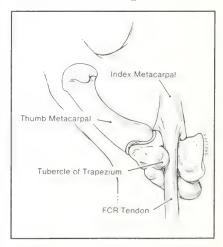


Figure 1: Anterior-posterior view of flexor carpi radialis tunnel.

ridge of the trapezium. This allows access to the tenosynovium at this level, which, if inflamed, can be excised.

Postoperatively, these patients are managed by splinting the wrist in neutral wrist flexion-extension in a light bulky dressing for three to five days. The patient then is allowed to begin a program of active and active-assisted range of motion. The normal course of recovery is approximately six weeks, after which the patient is able to resume unrestricted use of the extremity.

Flexor carpi radialis tunnel syndrome is one of many examples of tenosynovitis, occurring in the upper extremity. The syndrome tends to develop in people who perform repetitive flexion and extension of their wrists. In most cases, this syndrome should resolve with conservative management.

This is another article in a series of monthly articles on hand conditions from the Indiana Center for Surgery and Rehabilitation of the Hand and Upper Extremity in Indianapolis.

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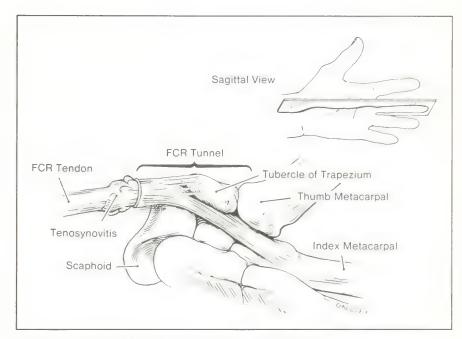


Figure 2: Saggital view of flexor carpi radialis tunnel.

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# Legislative key contacts play vital role in ISMA\_

Jean Terry ISMA Legislative Assistant

The Indianapolis Star recently published a three-part series on Indiana's malpractice system in which the reporters said "Indiana remains the stingiest state in the nation" when it comes to paying damages to victims of malpractice. The stories also said physicians pay some of the cheapest malpractice premiums in the country and that the Indiana Medical Malpractice Act benefits doctors and their insurance companies "far more than it benefits malpractice victims and their families."

A follow-up editorial in the *Star* said the malpractice act is "tilted in favor of the medical profession" and "does not deter malpractice." The editorial concluded that the legislature should "take a penetrating look" at the malpractice act. If the newspaper's campaign to change the act is successful, Indiana physicians could face the unfavorable malpractice situations that currently exist in other states. Patients, too, will be affected – in the form of more expensive medical care.

If the legislature begins to reexamine the malpractice act, the Indiana State Medical Association will need the help of its members to preserve important provisions of the law. In an effort to increase physician participation and visibility in legislative activities, the Indiana State Medical Association is improving and expanding its Key Contact program.

ISMA established the Key Contact program several years ago to encourage physician involvement in the legislative process. Physicians who volunteer to serve as key contacts agree to contact their legislators about issues that are important to medicine.

A "telephone tree" emphasiz-

If the legislature begins to re-examine the malpractice act, the Indiana State Medical Association will need the help of its members to preserve important provisions of the law.

ing peer-to-peer contact among ISMA members is the latest improvement to the program. When important legislation concerning medicine is being considered by the state legislature or Congress, the ISMA will contact several physicians who will, in turn, contact their own legislators and two assigned physicians. Those physicians each will contact their own legislators and two other assigned physicians. This system of physicians contacting physicians will continue until all of the participating physicians and their legislators have been contacted. When possible, fax machines will be used to enhance the speed and efficiency of the alert process.

The "telephone tree" system is designed to make more physicians' voices heard by legislators who otherwise might hear only one side of an issue.

To keep key contacts informed about important issues during the annual sessions of the Indiana General Assembly, each one will receive ISMA's weekly legislative newsletter. ISMA also will supply key contacts with other useful information, legislative key contact forms that will help them receive and pass along information relevant to legislative issues of concern, legislators' mailing addresses and a copy of the key contact manual.

The Key Contact program is a function of the ISMA government relations staff, which is largely responsible for monitoring, educating and influencing governmental officials about the concerns of organized medicine. Although the ISMA staff's lobbying efforts are valuable, physicians must realize that elected officials give great consideration to the opinions expressed by their individual constituents. Because legislators are being asked to consider increasing numbers of bills, legislators can only have limited knowledge about many issues. For issues they know little about, they must rely on the expertise of others, such as physicians, when making a voting decision.

This is where ISMA key contacts can influence the outcome of legislation affecting medicine. Issues such as government reimbursement, universal health care, medical malpractice, mandatory assignment, Medicare and Medicaid funding, physician discipline and peer review are determined by elected officials. Physicians, however, are the ones who know most about the delivery of quality

health care. Organized grass roots lobbying by ISMA physicians can help improve the chances of a favorable vote for organized medicine.

Physicians should remember that other special interest groups, often opposed to organized medicine's positions, also are contacting their legislators. Many of these groups are calling for national health care, mandatory assignment and policies that would drastically increase your medical malpractice premiums. Obviously, if physicians are not contacting their own legislators about these issues, then legislators are hearing only one side of the story. a side with which organized medicine would not necessarily agree.

Recently physicians in other states have been faced with legis-

lation that is detrimental to their practice of medicine. For instance, physicians in Massachusetts and Rhode Island must accept assignment on all Medicare claims as a condition of licensure. Physicians in Vermont and Connecticut also must accept mandatory assignment; however, their laws do allow the use of means tests and are not tied to licensure. So far, Indiana physicians have been able to dodge similar legislation.

Indiana physicians also have a favorable professional liability statute. The Indiana Medical Malpractice Act provides for a cap on recovery from health care providers who qualify under the act, ensuring that Indiana physicians' liability costs are kept at a mini-

mum.

The Indiana situation contrasts with that in southern Illinois, where a malpractice crisis is occurring. The skyrocketing cost of liability insurance in southern Illinois has caused many obstetricians to leave the area in search of more favorable practice climates. This exodus has forced some hospitals to close their obstetrics wards. As many as 12 rural communities did not have obstetrics care in 1989, up from eight in

To prevent a similar situation from occurring in Indiana and to maintain a positive environment in which to practice medicine, Indiana physicians willing to serve as key contacts are needed. To find out how to participate in the Key Contact program, call the ISMA Government Relations Department, (317) 925-7545 or 1-800-969-7545.

# The role of the physician in identifying and treating abused women\_\_\_\_

# Diane B. Brashear, Ph.D. Indianapolis

Editor's note: This is the second article in a two-part series on identifying and treating abused women.

Detecting abuse is an important step of this complex problem. The physician as a permission giver provides support, and the treatment regimen offers excellent, up-to-date resources. However, the patient may not always follow up on the referral, especially at the initial disclosure. The patient may require support and protection for a period of time before she is ready to use other resources.

Sensitive physicians need to understand that leaving the abusive relationship is not easy or simple. Referral to a social agency or therapist should not be done with an

implied goal that she will be asked to leave the relationship. Rather, the referral should be made to help the victim assess her situation and eventually make decisions. Many victims feel responsible for the abuse and would feel guilty seeking outside assistance unless they were encouraged to believe that one solution was to stay in the marriage.

Walker<sup>14</sup> finds that the battering cycle begins with minor battering. Each incident leaves unresolved tension, so feelings escalate to an acute battering incident. The core theme is the inability of

the husband to manage his anger, so prevention of escalation is a major intervention. Husbands need to be treated for their inability to resolve conflict.

Although many women feel responsible for the marital problem, it is less successful to counsel only the woman. Both partners need to be involved, yet it is common for the woman to initiate counseling. It is important for the physician to reinforce that this is a couple problem, one of communication and conflict management.

The final stage in the battering cycle is the "loving contrition" stage. The man apologizes and promises never to do it again. This period is so positive for a victim that she may deny previ-

abusive relationships occur over a long period of time. It is important for physicians to understand the context in which the abused woman functions, so her actions and decisions to stay can be understood.

Many battered women are unskilled and unemployed. And, even if these women are employed, their ability to financially support themselves and their children may be extremely limited. Women who live middle and upper middle class lifestyles may have no financial means of their own, nor skills with which they can support themselves. "The fewer resources a wife has in her marriage, the fewer alternatives to marriage. 15"

Fear of reprisal, real or imagined, may be a major factor in why women stay. Gelles<sup>15</sup> noted that many battered victims were socially isolated. They did not have close

friends or relatives. Many batterers are jealous and possessive, thus reinforcing fear of danger, even after separation.

Some women are inhibited by their religious values and cultural conditioning. Some cultures support male dominance. Many religions stress that maintaining the family unit is the greatest priority, even at the expense of the wife and mother.

The legal system is overwhelming and often not supportive. Police may inadequately protect the victim, believing that domestic problems are a private

# It is important for the physician to reinforce that this is a couple problem, one of communication and conflict management.

ous abuse or fail to recognize the escalating nature of the abuse cycle. It is, however, at the point of acute battering that physicians often are involved and find to their surprise that the victim has been lulled into staying in the relationship. Physicians can effectively use their authoritative role by identifying the escalation of the cycle and continuing to discuss this problem.

Why don't they leave?

Physicians may be frustrated and puzzled about why women stay in abusive relationships. Many

affair. Children can be a major deterrent. The inability to support their children, the fear of losing custody and the fear of emotional damage to the children are all realistic concerns.<sup>16</sup>

What seems clear, however, is that women who stay are not simply masochistic. Literal psychoanalytic interpretations of the pleasure of pain are absurd in light of so much data that identify economic, legal, cultural and psychosocial factors. Some argue that traits of passivity and dependency may keep women in abusive relationships. Women learn to be helpless as they perceive that their problems are insurmountable and they are victims of bad events. Some researchers say the extreme of the traditional feminine role is to be helpless and offer oneself as a victim.

Dutton and Painter<sup>17</sup> proposed that "traumatic bonding" can occur, in which the woman develops a strong emotional attachment to the batterer. Others have compared cult mind-controlling strategies as a possibility.<sup>18</sup> For whatever reasons, anyone who extends help to the abused must consider that identification of the abuse is only a beginning and leaving may not be an immediate solution.

Psychological stages must occur for the woman to shift into a position in which she can consider leaving. Abused women often are reluctant to seek mental health help and may feel more comfortable in counseling with their physician or staff. Counseling goals could involve helping her make a plan that includes practical and specific strategies, so she will be in a position to leave (i.e., improve her economic status).

However, before an abused

woman can even take these steps, she must recognize that leaving is an option. This may require a psychological shift in which she sees herself as a person of value who has the right to be in a supportive, non-abusive relationship. Taking this self responsibility requires positive self-esteem, a quality for which many women struggle.

Clinical depression among women often is associated with low self-esteem and overwhelming guilt. These factors can justify a referral for psychiatric evaluation and medication; however, the referral source needs to be informed of the abuse problem.

#### Rehabilitation

The rehabilitation steps required for the abuse victim are complicated. Rounsaville and associates<sup>13</sup> found that groups that created self-awareness of the women and focused on the reality and practical solutions were most helpful. Successful therapies include group treatment in which abused women share their common experiences and perceptions.

Shelters, whose policies provide physical shelter and anonymity, are the best resources available once the woman decides to leave. Some shelters, under the policy that abuse is a family concern, will not protect the woman from her abuser. This can be a realistic problem. Brekke<sup>3</sup> notes that family therapy is less successful than individual treatment of the abuser.

There is a guarded prognosis for abusers. Many professionals believe there are only two solutions to the problem of the abuse: to treat the abuser or to help the woman leave the abusive situation. Recent clinical reports find that incarcerating the abuser is more effective than psychother-

apv.

Research conducted with or about men who batter is limited. Some characteristics have emerged. For example, the batterer may have experienced violence in his own childhood, such as child abuse. Current alcohol and drug abuse often are present, and economic stress is also a factor. Most studies concur that alcohol is not the cause of battering but is associated with the abuse.

Rouse<sup>19</sup> found that the observation of violence in childhood was the single most important childhood experience that could predict if a man would become an adult abuser. Racial differences and socioeconomic backgrounds were not significant. Some studies found that some people with religious beliefs that hold women to be the property of their husbands have a high degree of wife and child abuse. Hamberger and Hastings<sup>20</sup> in reviewing clinical research concluded that profiles of batterers are consistent with the DSM-III R criteria for personality disorders.

The following cases are examples of the physician's role with a patient who is a probable or suspected victim of abuse.

#### Case 1

Mrs. Jones, six months postpartum, was seen in the emergency room requiring treatment for a broken arm and a broken rib. She reported that she was in a hurry and ran into a door. She said she was embarrassed about the incident and didn't want her husband to know. She also asked whether her emergency room visit would be reported to her obstetrician/

gynecologist. She seemed upset when she learned that he would be routinely notified since she gave his name as her physician.

When her obstetrician/gynecologist, Dr. Smith, received notice of her emergency room visit, his review of records revealed she previously had reported severe bruises on her leg, which she said she received when she ran into a door. On the following visit, Dr. Smith asked if there were some physical symptoms that she had not reported, noting the repeated accidents. Mrs. Jones seemed upset, adamantly denying any dizziness, seizures or fainting spells.

Dr. Smith then wondered how she and her husband were getting along. At that point, she became tearful and reported physical abuse. She begged Dr. Smith not to report her to the authorities. She had two young children, worked part time and did not have any relatives or friends that

would take her.

Dr. Smith said he recognized that leaving her husband wasn't an option at this time, but he did think she should talk with someone who was knowledgeable about these problems. He gave her the name of the local women's agency and said he hoped she would make contact soon. He said he would have his nurse call her next week to see how she was doing.

Dr. Smith took several steps in the identification process: 1) he recognized symptoms suggesting battering; 2) he funneled his questioning to eventually elicit confirmation of his suspicions; 3) he recognized the realities of her situation and provided information about resources; and 4) he had his nurse follow up, a less

threatening and a usual routine in his practice.

#### Case 2

Everyone in the small town knew the Carter family drank heavily and were roughnecks. Their women were tough, too. One day Julia Carter asked her family physician for specific help about her sexual response. She said her husband was having erection problems and accused her of not being sexy. She revealed that she had been faking her sexual response for a long time, but now she was afraid her husband knew it, and that was why he could not perform sexually.

**Physicians** can significantly help abused women by assessing positive, probable or suggestive signs of abuse.

Her physician asked why she was afraid of her husband and if he physically hurt her. After that question, the patient disclosed 10 years of battering. Throughout the disclosure, Julia continued to take all the responsibility for her husband's abuse. If she had been a better wife and lover, he would not have to hurt her.

Dr. Jones said he knew that it was a couple's problem and wondered if her husband would go for help with her. She did not think so and was afraid to ask. She said she had never discussed this with anyone else.

Dr. Jones told her of a support

group that met near Julia's workplace at noon on Thursdays. It was anonymous and confidential. Anyone who had experienced abuse could attend. Iulia said she would consider attend-

He gave her a pamphlet on abuse and the name and address of the group meeting. He proceeded to explain that her husband's erection problem was not all her responsibility. Her husband could have medical problems or could be overly worried about his erection. It might help if she could persuade him to see a physician.

Dr. Jones' steps in this identification process were: 1) he did not make a value judgment about Julia based on the family's reputation; 2) he was alert to the patient's fear of her husband; 3) he recognized that the patient needed to become self-aware about her abuse and that she did not have to feel responsible; 4) he recommended several resources for this: 5) he identified the abuse as a couple problem; and 6) he referred her husband for medical evaluation.

### Conclusion

Physicians can significantly help abused women by assessing positive, probable or suggestive signs of abuse. Identification may be complicated by the victim's need to protect the abuser and her inability to leave the abusive situation. Recognition of the problem is only the beginning step in the rehabilitation process.

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# Look-alike and sound-alike drug names

Category:
Brand name:
Generic name:

Brand name: Generic name: Dosage forms: Anorectal preparation Anucort, G. & W. (combination drug) Suppositories

ANUCORT

Category: Brand name: Generic name:

Antihypertensive Aldoclor, MSD (methyldopachlorothiazide) Tablets

ALDOCLOR

Dosage forms:

ANUSOL Anorectal

Anorectal preparation Anusol, Parke-Davis (combination drug) Ointment, suppositories

**ALDORIL** 

Antihypertensive Aldoril, MSD (methyldopahydrochlorothiazide) Tablets

# ■drug names

Benjamin Teplitsky, R. Ph. Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions.

Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such lookalike and sound-alike drug names can reduce potential errors.

# Update on legal processes \_\_for adoption in Indiana\_\_

William A. Engle, M.D. William Greenwood, M.D. Franklin I. Miroff, J.D. Indianapolis

One purpose of the Adoption-Dependent Care Committee of the Indiana American Academy of Pediatrics (AAP) is to update child care givers about the process and the evolving issues in adoption.

Adoption legally results in complete substitution of parents for the adopted child and completely severs the birth parents' legal relationship with the child. In Indiana, people allowed to adopt a child may be married or single, or a married person who is separated or has been abandoned.

A legal adoption must conform to the laws of Indiana, although Indiana recognizes independent or private adoptions provided the contract is between adults. However, it is unlawful to pay or offer money to the parent of a child for placement for adoption, the parents' consent for adoption or for cooperation in completing the adoption of a child. In Indiana and in many other states, however, it is commonly accepted that the adoptive parents offer to pay for the medical care of the adoptee and the birth mother during pregnancy.

The subject of consent is a major legal problem involved in adoption. The child, the adopting parents and the birth parents must give consent. In Indiana, the child's consent is required if the child is 14 years of age or older. Both of the adopting parents must consent in writing. In the event

## **Abstract**

In this article, we review the process of adoption in Indiana. Comments about the legal process, the right to know issue and the process of adoption from the viewpoint of the potential adoptive parents are discussed.

that the adopting parents separate before the adoption is final, many courts will stop the adoption process pending determination of the best interests of the child.

Indiana state policy recommends that the biologic parents sign relinquishment papers as soon as the birth mother has regained her competency after the anesthesia used during childbirth has lost effect. In addition, the biologic parents may revoke their consent at anytime before the adoption is finalized by court approval.

The length of time between filing the petition to adopt and finalization by the courts is variable and depends on state laws. In Indiana, this duration of time is at the discretion of the courts. If the named person denies paternity, he waives his right to notice or consent of adoption. If he agrees to claim paternity, he also must sign consent for adoption of the child. Consent from the biologic parents is not always required. In instances where the rights of the biologic parents to the child have been legally terminated (due to abandonment or incompetency in many cases), the legal guardian or representative (may be an agency or institution) must give consent.

After the procedures leading up to an adoption have been completed, a court hearing before a

judge takes place. The adoptive parents, the child and the lawyer or agency representative generally are required to appear in court for an adoption hearing. The court hearing usually is a private, informal meeting with the judge and court personnel. The judge will ask questions to assure the court that the legal matters are complete and the best interest of the child is being served.

Once the judge is satisfied that all is in order, the judge will sign the adoption decree, thereby legally establishing the parentchild relationship between the adoptee and the adopting parents. A certificate of adoption may be filed and the child's birth certificate will be amended to state that the adoptive parents are the legal parents of the child.

The adoption contract is legally binding and is enforceable by the courts. In situations where the contract is broken, the courts may award damages for breach of contract; however, because adoption is a sensitive, emotional process, the courts generally individualize each case when a decision must be made about whether the adoption should or should not be completed.

The adoptee's right to know issue is at the forefront of concerns by adoptees, adoptive parents and birth parents. Statutes that have required adoption rec-

ords to be sealed permanently are being questioned. The supporters of openness in adoption raise the point that non-identifying information may benefit both the birth parents and the adoptive parents. The birth parents may be able to review non-identifying information and, therefore, participate in selecting prospective adoptive parents. In addition, periodic updates on the child's condition may be available to the birth parents; this may support the birth parents' grief process about choosing to place their child for adoption.

The adoptive parents also may benefit by shared non-identifying information such as ethnic origins, medical problems prevalent within the biologic family, parental education level and individual personal strengths. In Indiana, adoption records may only be opened with a court order (1985).

The actual process of adoption can vary from state to state and with either an agency or private adoption. The application of this process can be overwhelming to many people who would like to adopt a child but have no idea how to pursue their goal. The actual steps in adoption are not as complicated as most people imagine.

The first step is to determine whether one wants to adopt. After deciding to attempt this, one must contact a potential intermediary – either an adoption agency or a private attorney (preferably an adoption specialist). By law, an investigation of the potential adoptive person or family must occur before placement of a child. Such a preplacement investigation is required in most states, including Indiana.

In addition, one also must decide what general characteristics are preferred in an adoptee: age, sex, race, nationality, general health, etc. As most adoptions involve newborn infants, we will emphasize this form of adoption. Adoption of a toddler or older child would follow the same general steps.

Because there often is a correlation between the number of people who are aware that someone wishes to adopt and the probability that an appropriate infant/child becomes available, it may help to notify everyone, even people not known personally (physicians, out of touch schoolmates, clergy). This method is most helpful if non-agency adoption is being pursued. Those people notified of someone's interest in adoption should con-

In Indiana, adoption records may only be opened with a court order (1985).

tact an attorney if an appropriate candidate is known. The candidate, such as a pregnant woman who is considering placing her yet-to-be-born infant for adoption, then should contact the same attorney or agency. This is an important step to maintain anonymity of the parties involved and to protect the rights of the birth mother.

While the preplacement investigation progresses, the birth mother should receive professional counseling so she clearly understands her options and can

deal with her feelings if she chooses the adoption option. Additionally, such counseling would later make it much more difficult for a birth mother to contend that her decision to place the infant for adoption was based on anything other than informed consent. If there is an identified birth father, then his informed consent also must be obtained for the adoption process.

Once the infant has been born, then and only after all anesthetic effects are gone (24 hours usually is the observed interval), the birth mother signs documents relinquishing all parental rights. It is appropriate for her to receive copies of these documents well in advance of her due date so she may examine them thoroughly. By the time she actually signs the documents, there must be no doubt that she is giving up all rights to the infant.

Next, a court hearing occurs, usually within a few days after the birth, to ascertain that all preadoption conditions have been met. At that hearing, the adoptive parents usually are granted custody of the infant until the adoption becomes final. In Indiana, that period is six months.

Once the baby has been born, the hospital notifies the intermediary attorney who then notifies the adoptive parents so they may have the baby examined by a pediatrician of their choice before the initial custody hearing. Also, some hospitals have parent education programs available specifically for adoptive parents. If for any reason the baby is not adoptable, the potential adoptive parents will still be liable for legal and certain medical costs. If the baby is ill, he or she may be covered by the adoptive parent's

health insurance, but this varies from one policy to another.

The attorney/agency then takes physical custody of the baby so he or she may be placed with the adoptive parents while preserving anonymity. About six months later, if all goes as planned, the court grants full, irrevocable parental rights and responsibilities to the adoptive parents.

While it is possible for the birth mother to change her mind during the six month conditional placement, this occurs very infrequently. Most courts seldom decide in favor of the birth mother, provided all pre-adoption steps were conducted appropriately. The laws of most states protect the birth mother's interests until she makes the informed decision to give up her parental rights. At that point, the support of the law protects the interests of the adoptive family.

Correspondence: William A. Engle, M.D., Assistant Professor of Pediatrics, Section of Neonatal-Perinatal Medicine, James Whitcomb Riley Hospital for Children R-208, 702 Barnhill Dr., Indianapolis, IN 46223.

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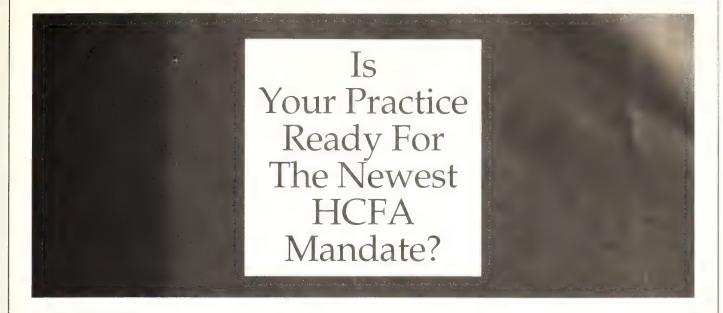
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# The AMA explains Health Access America

Something is wrong with the American health care system.

No health care system in the world can match the high caliber of medicine practiced in this country, nor the advanced medical procedures and technology now common here.

Yet more than 30 million Americans have limited or no access to our health care system. That is a national disgrace.

Dealing with this disgrace will be no easy task. It is one, however, that medicine must tackle together. In that cooperative spirit, the American Medical Association has introduced its proposal, Health Access America.

Building on strength

Health Access America is described as "the AMA proposal to improve access to affordable, quality health care." Simply put, the AMA wants to work within our current system to improve delivery to all Americans. This strategy allows us to build on the system's strengths. These include:

1. Most Americans are satisfied with their physicians and the health care services they receive.

2. Most patients are free to choose their physician, hospital and system of care.

3. Technology is widely available and science remains free to conduct research in the best interests of the patient.

4. The medical education system continues to produce highly trained, competent physicians.

5. Medical professionals remain free to act as patient advocates rather than agents of the

government or other interests.

These strengths provide the foundation for Health Access America. The individual's freedom of choice, combined with an independent medical profession, remain the cornerstones of our system – a system that doesn't allow government to dictate choices to patients or physicians.

### The problem

A strong system like ours can be improved without starting over. But we must move forward – quickly.

The experts disagree on the exact number. Yet the fact remains: More than 30 million Americans are without adequate access to care because they or their employers cannot afford private insurance, and public assistance is unavailable.

About 70% of the uninsured, totaling some 24 million, are working people and their families. Some 3 million people have health conditions that deem them "medically uninsurable" by private companies. The Medicaid system assists only about 40% of those below the poverty line.

Our system is clearly far from perfect. Americans will not accept compromise, however, to fix the system. According to public opinion polls, U.S. citizens favor a system based on employer health insurance that would slow rising costs, improve access for the poor and elderly and remove the burden of bureaucratic paper work.

The AMA proposal

Health Access America is a starting point. During the coming months, the AMA will seek the

participation of all interested parties: government, business, the insurance industry, health care providers and organizations and the public. Through debate and negotiation, the AMA proposal can be modified and refined. Yet our goal will remain the same – providing access to health care for all Americans.

The AMA's proposal is a blueprint for extending access, moderating health care costs and sustaining the Medicare program to assure proper health care for all. Its 16 points are as follows:

1. Effect major Medicaid reform to provide uniform adequate benefits to all people below the

poverty level.

2. Require employer provision of health insurance for all full-time employees and their families, creating tax incentives and state risk pools to enable new and small businesses to afford such coverage.

3. Create risk pools in all states to make coverage available for the medically uninsurable and others for whom individual health insurance policies are too expensive and group coverage is unavailable.

4. Enact Medicare reform to avoid future bankruptcy of the program by creating an actuarially sound prefunded program to assure the aging population of continued access to quality health care. The program would include catastrophic benefits and be funded through individual and employer tax contributions during working years. There would be no program tax on senior citizens.

5. Expand long-term care financing through expansion of

private sector coverage encouraged by tax incentives, with protection for personal assets, and Medicaid coverage for those below the poverty level.

6. Enact professional liability reform essential to reducing inordinate costs attributable to liability insurance and defensive medicine, thus reducing health care costs.

7. Develop professional practice parameters under the direction of physician organizations to help assure only appropriate, high quality medical services are provided, lowering costs and maintaining quality of care.

8. Alter the tax treatment of employee health care benefits to reward people for making economical health care insurance choices.

Develop proposals that encourage cost-conscious decisions by patients.

10. Seek innovation in insurance underwriting, including new approaches to creating larger rather than smaller risk spreading groups and reinsurance.

11. Urge expanded federal support for medical education, research and the National Institutes of Health, to continue prog-

ress toward medical breakthroughs that historically have resulted in many lifesaving and cost-effective discoveries.

12. Encourage health promotion by both physicians and patients to promote healthier lifestyles and disease prevention.

13. Amend ERISA or the federal tax code so the same standards and requirements apply to self-insured (ERISA) plans as to state-regulated health insurance policies, providing fair competition.

14. Repeal or override statemandated benefit laws to help reduce the cost of health insurance, while assuring through legislation that adequate benefits are provided in all insurance, including self-insurance programs.

15. Seek reductions in administrative costs of health care delivery and diminish the excessive and complicated paper work faced by patients and physicians alike.

16. Encourage physicians to practice in accordance with the highest ethical standards and to provide voluntary care for people who are without insurance and who cannot afford health services.

You can help

Strengthening the American health care system will present an enormous challenge to all of us. Satisfactory reform cannot happen without the active support of physicians and their medical associations.

Health Access America is an opportunity. It is a chance to highlight your past accomplishments in improving access. It is a catalyst for related legislative proposals. It is a stake in the future.

Take this opportunity by participating in Health Access America. For example, you can:

1. Discuss the proposal with your colleagues and in your medical society committees.

2. Use the Health Access America proposal as a support piece in local lobbying efforts.

3. Relate your own association's programs and initiatives to specific Health Access America points.

For more information, write Health Access America, AMA, 535 N. Dearborn St., Chicago, IL 60610. □

# recent court rulings

# Nurse's aide present at homicide/suicide awarded worker's comp

A nurse's aide who suffered depression after witnessing a shooting incident involving a patient was entitled to worker's compensation disability benefits, an Indiana appellate court ruled.

After the aide left the patient's room, the patient's husband closed the door. The aide heard two gunshots and correctly assumed that the husband had shot the patient and then himself.

The aide "froze" and had to be escorted to another area of the hospital. She became extremely depressed, and her condition was found to be causally related to the shooting. The mental condition was found to be incidentally related to the aide's employment, and the worker's compensation board concluded that she was entitled to benefits for temporary total disability.

On appeal by the hospital, the

hospital contended that there was no causal connection between the aide's injury and her employment and that the board's conclusion was not supported by findings of fact. The hospital argued it must be shown that the stimulus was directed at the aide if the aide sought compensation for mental injury.

The appellate court pointed out that the aide was injured at the hospital where she was employed while performing tasks that were part of her job responsibilities. The board found an incidental relationship between the injury and the aide's employment. Further, the Indiana Supreme Court previously had rejected the rationale that additional causation requirements should be imposed when benefits were sought for a mental condition.

The court also said an injury was compensable if its risk was

increased because of the particular nature of a claimant's job. Jobs that exposed an employee to increased and indiscriminate contact with the public had been held to subject an employee to a special risk of assault. In the present case, the aide was in regular contact with patients and visiting members of the general public.

The court said the board's finding that the aide's condition was incidentally related to her employment was sufficient to establish the existence of a causal relationship. The facts that the shooting incident was not ongoing, was not directed at the aide and was not an incident in which the hospital acquiesced did not undercut the finding of a causal connection, the court said. The court affirmed the compensation award. – North Clark Community Hospital v. Goines, 545 N.E. 2d 30

# IUD patient and her husband awarded damages for injuries

Even though the couple had been temporarily separated, a patient's husband was able to claim loss of consortium in a suit against a nurse and clinic for the negligent insertion of an intrauterine device, an Indiana appellate court ruled.

The patient, a mother of one, did not wish to have more children. When she visited a Planned Parenthood clinic in August 1984, the nurse advised her to return during her next menses for the insertion of an IUD. The patient chose to abstain from sexual activity during this time rather than to use another form of birth control. She had a history of particularly

irregular menstrual activity, and although it was 75 days past her last menses, she returned to the clinic in late October with the onset of what seemed a typical menstrual flow. After a cursory examination, the nurse inserted the IUD two days later, Oct. 24, and the patient was told that vaginal bleeding beyond the typical menstrual period is not uncommon.

The patient claimed that, in response to her reports of vaginal bleeding over the next two weeks, the clinic assured her this was not unusual. She "passed a clot" and, after fainting Nov. 10 was diagnosed at a hospital as having an incomplete abortion. Her regular

gynecologist performed an emergency dilation and curettage and recovered the IUD with placental matter entangled in it. The couple sued the nurse and clinic. A jury awarded \$50,000 to the patient for negligence and \$10,000 to her husband for lost consortium.

On appeal, the court rejected all of the arguments made by the nurse and clinic. In affirming the trial court's judgment, the court concluded that the award of damages by the jury to the patient for negligence and to the husband for loss of consortium was not excessive. – Planned Parenthood of Northwest Indiana, Inc. v. Vines, 543 N.E. 2d 654 (Ind. Ct. of App., Sept. 14, 1989).

# recent court rulings

# Indiana Malpractice Act not unconstitutional

statute of limitations did not violate the equal protection clause, although it treated patients with legal disabilities less favorably than did the general tolling statute, a federal appellate court for Indiana ruled.

Allegedly as a result of negligent treatment of a mother and infant at the time of birth, Jan. 21, 1968, the infant suffered brain damage and was deaf, unable to speak and afflicted by athetoid cerebral palsy. The child's parents brought an action for malpractice individually and on the child's behalf. They alleged that a physician was negligent in failing to perform blood tests and other procedures at the time of the child's birth and that he concealed information regarding the existence of appropriate procedures that would have prevented the injury. The parents claimed they

were unaware of his failure to perform the procedures until immediately before filing the action March 7, 1984. The trial court found that the action was barred by the statute of limitations.

On appeal, the parents contended that the statute of limitations violated the equal protection clause of the Fourteenth Amendment. If the injury was to a minor under 6 years of age, the statute provided that action might be commenced any time before the child's eighth birthday. For an injury that occurred before the effective date of the act (July 1, 1975), an action might be brought within the longer of two years after the effective date of the act or, for an injury to a child under the age of 6, before the child's eighth birthday. Thus, the parents had until July 1, 1977, to file an action.

The parents contended that the statute created an express

classification based on age and legal disability due to mental impairment, thus treating those with legal disabilities less favorably than did the general tolling statute. The court said the act was passed to address the concerns of rising medical costs and the need for comprehensive, affordable health coverage. Although the court was sympathetic to the parents' plight, it found that the limits imposed were rationally related to the goals of preventing stale claims and controlling the cost of medical care. The court affirmed the lower court's judgment. - Douglas v. Hugh A. Stallings, M.D., Inc., 870 F. 2d 1242 (C.A.7, Ind., March 13, 1989). □

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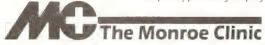
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# letter to the editor

Thomas P. Bright, M.D. Claudia J. McNulty, Pharm. D. Anderson

Ochaaf and Yoder's article "Antibiotic prophylaxis for dental patients with prosthetic joints" (INDIANA MEDICINE, December 1989, p. 960) reported the results of a survey of orthopaedic surgeons concerning their use of antibiotic prophylaxis for dental procedures in these patients.1 The results of the survey indicate widespread support for the use of oral cephalosporin prophylaxis for patients with joint replacements undergoing dental procedures. In a 1985 survey, Jaspers and Little found that, while only 41% of orthopaedic surgeons believed that transient bacteremia following dental procedures could cause prosthetic joint infections, 93% recommended giving antibiotics to their patients.2

A decision to use antibiotic prophylaxis must include many

factors:

1. Can transient bacteremia during dental procedures cause prosthetic joint infection? Few, if any, cases of prosthetic joint infection directly attributable to transient bacteremias have been reported and confirmed. In a review of 1,855 patients undergoing dental procedures, an infection rate of 0.05% was calculated.3 In a second review of 2,693 patients, only one of 30 infections could be related temporally to dental procedure.4 A Fisher's exact test of the data reflected that dental treatment in this population did not increase the incidence of late prosthetic joint infections (p value is 0.0005). Findings of the study did suggest that chronic bacteremias (UTI, pneumonia) are much more likely sources of late prosthetic

joint infections.

2. What organisms would be expected to cause prosthetic joint infection after dental work? Infection subsequent to transient bacteremia from dental procedures would be expected to be caused by oral flora, such as streptococci and anaerobic streptococci. Late prosthetic joint infections are predominantly caused by staphylococcal organisms,5 which usually are not present in oral flora.

3. What antibiotics are the best prophylaxis against oral flora? The usual choice for prophylaxis against mouth flora is erythromycin or penicillin.6 Cephalexin is effective against Staphylococcus aureus, but this organism has not been shown to be involved in bacteremia from dental procedures.

4. Can antibiotic prophylaxis prevent joint infection after transient bacteremia? There are no data to confirm the effectiveness of antibiotics in preventing joint infections resulting from dental

5. Can potential benefits from prophylactic antibiotics outweigh the cost of these antibiotics, the potential side effects, alterations of the patient's normal flora and the possible emergence of resistant bacteria?

A cost-effectiveness analysis was performed by Tsevat to evaluate whether patients should take erythromycin, penicillin or no antibiotic.7 He concluded that, from a patient's perspective, the benefits of taking erythromycin (1 gm orally before the procedure and 500 mg six hours after) at the time of dental procedures outweighed the risks. The American Academy of Oral Medicine said "There is insufficient scientific evidence to support routine antibiotic prophylaxis for patients with prosthetic joints who are receiving dental care, and that a blanket recommendation for antibiotic coverage would be inappropriate at this time, but rather that the decision should be determined by the dentist's clinical judgment or in consultation with the patient's surgeon.8" The considerations that formed this decision are published in the October 1988 issue of Oral Surgery, Oral Medicine, Oral Pathology.

Finally, there is much stronger association documented for infection in arthroplasty patients with active oral infections. Existing data substantiate the need for vigorous treatment of acute oral bacterial infections and emphasis on maintenance of good oral

hygiene. 🖵

Drs. Bright and McNulty are clinical pharmacology consultants at St. John's Medical Center in Anderson.

Correspondence: Thomas P. Bright, M.D., Pharmacology & Toxicology Consultants, Inc., 2101 Jackson St., Anderson, IN 46016.

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# ■ letter to the editor

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# Authors' reply

Jack E. Schaaf, D.D.S Karen Masbaum Yoder, L.D.H., M.S.D.

he authors thank Drs. Bright and McNulty for their comments regarding our article that appeared in the December 1989 issue of Indiana medicine. Their critique highlights several important points that we would like to review. This article initially appeared in the Indiana Dental Association Journal and was submitted to Indiana medicine because the survey information would interest our medical colleagues, especially those who are not orthopaedic surgeons.

Drs. Bright and McNulty correctly note that the chance that a dentally induced bacteremia would cause a late prosthetic joint infection is low. We reported the same estimates in our article. However, according to the references, a risk apparently does exist, and none of the publications that we have read state that such an infection is impossible.

It also is correct that streptococci are the oral organisms most likely to produce a bacteremia

and usually are controlled by penicillin or erythromycin. However, our survey revealed that most Indiana orthopaedic surgeons preferred a cephalosporin as the antibiotic of choice when premedicating the patients before dental treatment. While these statements appear to be contradictory, one must remember that staphylococcal organisms have been isolated from the oral cavity, that staphylococci most frequently are associated with septic endoprostheses, and cephalosporin also should control bacteremias or oral streptococci.

Drs. Bright and McNulty also said no data confirm the effectiveness of antibiotics in preventing joint infections after dental procedures. A review of the latest recommendations of the American Heart Association on the prevention of endocarditis reveals that "there are no controlled clinical trials," that "regimens must be based on indirect information," and that "endocarditis may occur despite antibiotic prophylaxis.1" Even after decades of evaluations and alterations of prophylactic protocols, there are still no definitive human data or guarantees in the case of endocarditis. The authors believe that, in the case of prophylaxis for prosthetic joints, the scientific judgment of orthopaedic surgeons should be followed until scientific data are conclusive.

Finally, the potential benefit of antibiotic prophylaxis versus side effects is questioned. We believe the expense, morbidity and patient incapacitation associated with a joint infection justify the use of prophylaxis, even though the risk of infection is small. The American Academy of Oral Medicine concludes that the

decision on prophylaxis should be "determined by the dentist's clinical judgment or in consultation with the patient's surgeon." However, since neither the dentists making the previous statement nor any other dental or medical group has issued guidelines on which the dentist can make such a judgment, the orthopaedic surgeon's opinion becomes primary. Our article attempted to determine those recommendations.

As dental professionals, we are well-trained and experienced in treating the diseases of the teeth and mouth. Occasionally, our treatment may affect other areas of the body, sometimes adversely, and we must rely on the valued recommendations of the physician. Obviously, consultation with the patient's physician is always preferred rather than following the generalities of a journal. This point was stressed in our article.

However, at times, emergency dental treatment is necessary, and the surgeon cannot be contacted. The dentist then must rely on some general guidelines. As dentists, we shall not be able to treat the sequelae of an infected prosthesis, and it is imperative that we continue to accept reasonable recommendations of those more experienced in this area of medicine. We hope official guidelines that dentists and physicians can follow will be formulated. However, it appears that no such definitive recommendations will be available in the future.

### References

1. American Heart Association/ Council on Dental Therapeutics: Prevention of bacterial endocarditis: A committee report of the American Heart Association. I Am Dent Assoc, 110:98, 1985.

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# auxiliary report

# Rod Ashley ISMA Auxiliary President

 ${f F}$ or many years, most county auxiliaries were loosely associated with their medical societies. When the medical community was calm, medical societies and auxiliaries went their separate ways and did not work together. Medical societies did not know what to do with their auxiliaries and let auxiliary members proceed on their own. Nevertheless, the results of the auxiliaries' work were outstanding, producing hundreds of civic projects and collecting hundreds of thousands of dollars for charitable health-related programs, including the American Medical Association's Education and Research Foundation.

However, the medical community is no longer calm. The entire structure of medicine, medical practice, patient care and health care costs are under revision. Surveys indicate that 90% of Americans are ready to abandon the whole system. In this country, Congress often ultimately com-

plies with the wishes of the public. Unfortunately, as these changes occur, there is a maximum concern for dollars and a minimum concern for patients and their physicians.

AMA leaders and physicians across the country have become alarmed at the direction these changes are taking. Generally, members of the medical community are not politically active, although circumstances show that we should be. Although physicians and their spouses are busy, we must find time to try to voice our opinions on laws that threaten medicine.

As I travel to society district meetings and county auxiliary meetings, I urge both groups to form strong bonds and communicate with one another, to join forces in producing projects that will improve the image of medicine, to communicate to legislators the concerns of the medical community and to jointly analyze plans, activities and projects so the most important are produced first

The bylaws of each auxiliary clearly indicate that its purpose is

to serve the society's needs. This time of unrest, stress and changing conditions indicates a need for unity. I urge you to support not only your society but its auxiliary. I urge each society to communicate with and guide its auxiliary.

Medical societies that do not have auxiliaries are missing a valuable resource of volunteer commitment and effort. The ISMA Auxiliary stands ready to assist these societies in meeting with physicians' spouses and helping them participate in organized medicine.

No one knows where the changes in medicine will lead or what the final outcome will be, but we know changes are being made. By working together, the society and the auxiliary will form a stronger voice in influencing those changes than either could individually.

It is time to join hands and work together. It is time to support one another while we face together the threats to medicine. We truly cannot afford to do otherwise.

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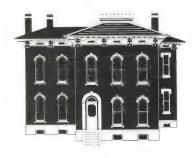
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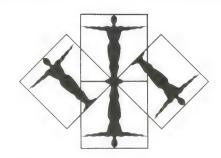
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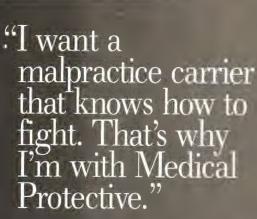
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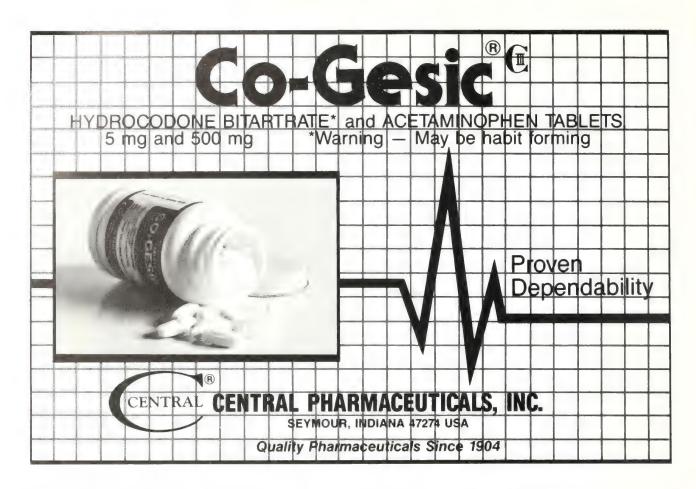


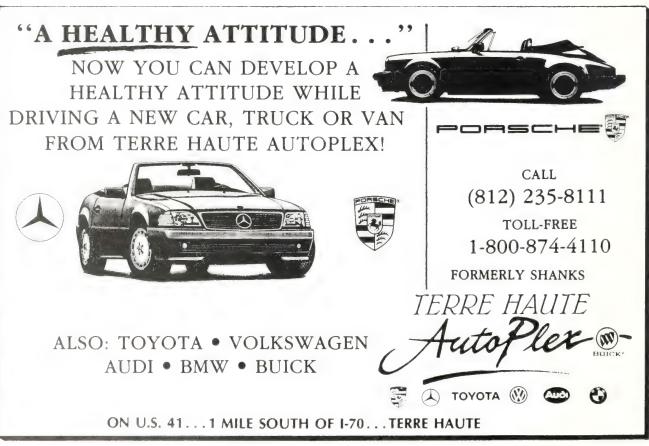
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1 — Pres: Kishor Bhatt, Boonville Secy: Gregory Hindahl, Jasper Annual Meeting: May 16, 1991

2 - Pres: James Beck, Washington Secv. Bob Webb, Odon Annual Meeting: May 9, 1991

3 - Pres: Richard P. Gardner, New Albany Secy: C. M. Hocker, New Albany Annual Meeting: May 15, 1991

4 - Pres: David Laitinen, Seymour Secy: Daniel Walters, Seymour Annual Meeting. May 1, 1991

5 - Pres: Roland M. Kohr, Terre Haute Secy: Peggy Sankey-Swaim, Rockville Annual Meeting: Sept. 27, 1990

6 — Pres. Stephen Dillinger, Greenfield Secv. Richard Carson, Connersville Annual Meeting May 8, 1991

Pres Charles O. McCormick, Greenwood Secy: H. Marshall Trusler, Greenfield Annual Meeting, 1991

8 - Pres Kathleen A. Galbraith, Portland Secv: I. Frank Vormohr, Portland Annual Meeting June 5, 1991

9 — Pres. Stephen D. Tharp, Frankfort Secy: R. Adman Lanning, Noblesville Annual Meeting: June 12, 1991

10 - Pres Nicholas L. Polite, Hammond Secy. Barron M. Palmer, Hammond Annual Meeting: June 19, 1991

11 - Pres: James E. Duncan, LaFontaine Secy: Fred C. Poehler, La Fontaine Annual Meeting Sept. 19, 1990

12 - Pres. Mark S. Souder, Auburn Secy: John A. Egli, Topeka Annual Meeting: Sept. 20, 1990

13 - Pres: Thomas J. Eberts, South Bend Secy: John W. Schurz, South Bend Annual Meeting Sept. 12, 1990

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### mnews briefs

MDA awards grant to IU School of Medicine researcher

The Muscular Dystrophy Association (MDA) has awarded a \$74,194 grant to P. Michael Conneally, Ph.D., a researcher at the Indiana University School of Medicine. The grant will fund a project to find the gene that, when defective, causes limb-girdle muscular dystrophy. Funding for the grant, in part, was made possible by money pledged to the MDA Jerry Lewis Labor Day Telethon, broadcast locally by WRTV 6, and by hundreds of special events in Indianapolis conducted by volunteers and businesses.

ISBH approves expanded AIDS group membership

The executive board of the Indiana State Board of Health (ISBH) has approved an expanded membership list for the Indiana AIDS Policy Group (APG) at the request of Michael Zeckel, M.D., chairman of the group. The APG, which now consists of 19 members, is developing a five-year statewide plan for addressing the AIDS epidemic in Indiana. As of May 1, 794 AIDS cases had been reported among Indiana residents, an increase of 26 from the previous month.

FDA issues intrauterine laser surgery safety alert

The Department of Health and Human Services has issued a U.S. Food and Drug Administration Safety alert stating that gas or air embolism is associated with intrauterine laser surgery. Physicians, operating room personnel, hospital administrators and risk managers should know the risk of gas or air embolism when gas, primarily air or CO<sub>2</sub>, is used for cooling the

laser fiber tip or for insufflation during therapeutic intrauterine procedures.

To avoid the possibility of a gas or air embolism during intrauterine laser surgery, gas or air should not be used for insufflation or for cooling the laser fiber tip during the procedure. A liquid distention medium provides adequate visualization and also will serve as a cooling agent for the laser tip.

### Revised 1990 Medicare code manual now available

Medical Administration Publications has released the revised 1990 HCPCS Level II National Codes. The codes in this manual are used to report supplies and injections to Medicare and are a supplement to CPT. Symbols identify new, revised and deleted codes. Copies of this 228-page book may be obtained from Medical Administration Publications, 671 Executive

#### Magazines without tobacco advertisements

Physicians interested in promoting a smoke-free environment can stock their office reception areas with magazines that do not contain tobacco advertisements. In response to Resolution 88-25, adopted by the 1988 ISMA House of Delegates, INDIANA MEDICINE is publishing a list of magazines that do not contain tobacco advertisements.

Magazines without tobacco advertisements include: Adirondack Life, Air & Space, Alaska Magazine, American Baby, American Health, American Heritage, American History Illustrated, Animal Kingdom, Arizona Highways, Audubon, Aviation Week & Space Technology, Backpacker, Bicycling, Boy's Life, Business Week, Consumer Reports, Cyclist, Dance Magazine, Diabetes '89, Diabetes Forecast, Down East Magazine, Farm Journal, Fishing Facts, The Futurist, Golf Illustrated, Good Housekeeping, Hadassah Magazine, Harvard Business Review, Harvard Medical School Health Letter, Health, Highlights for Children, Historic Preservation, Horticulture, Humpty Dumpty's Magazine, International Travel News, Isaac Asimov's Science Fiction, Jack and Jill, MAD Magazine, Maine Fish & Wildlife, Maine Life Magazine, Mayo Clinic Health Letter, Medical Selfcare, Model Railroader, Modern Maturity, Montana Magazine, Mother Earth News, Mother Jones, Nation, National Geographic, National Parks Journal, Nation's Business, Natural History, The New Yorker, North American Review, Nutrition Action Healthletter, Oceans, Old House Journal, Organic Gardening, Parenting, Parents Magazine, Personal Computing, Petersen's Hunting, Popular Communications, Prevention, Railfan and Railroad, Ranger Rick, Reader's Digest, Runner's World, Sail, Saturday Evening Post, Science, Science News, The Sciences, Scientific American, Sesame Street, Seventeen, Sierra, Smithsonian, Sports Afield, Stork, Sunset Magazine, Theatre Crafts, Travel Holiday, Utah Holiday, Vegetarian Times, Venture Magazine, Vermont Life, The Washington Monthly, Western Outdoors, Writer's Digest and Yankee.

### news briefs

Dr., Willowbrook, IL 60521, 1-800-624-6994. The book is \$28.50, plus \$3.50 for shipping and handling.

#### NCPCA releases brochure

The National Committee for Prevention of Child Abuse (NCPCA) has released its latest publication, a brochure titled "How to Teach Your Children Discipline" by Marilyn E. Gootman, Ed.D. This brochure is written in clear, simple language and follows a question-and-answer format. It addresses the difference between punishment and discipline, the importance of parental self-control, the alternatives to spanking and other related issues. For a free brochure, write NCPCA, P.O. Box 2866BD, Chicago, IL 60690.

### AIDS videotape designed to promote understanding

The Department of Veterans Affairs has produced a videotape designed to help health care personnel, as well as the general public, in their understanding of the effects of AIDS. Titled, "... like any other patient," the 26-minute video includes interviews with AIDS patients and their families and provides insight into what it is like to have AIDS. People interested in viewing the videotape should contact their local public or school library and arrange to

borrow it from a VA medical center library. Copies also may be purchased for \$55 by calling 1-800-638-1300.

#### Toll free EMS hotline started

The Public Health Foundation has established a toll free information line, 1-800-EMS-2829, on eosino-philia-myalgia syndrome (EMS). EMS, an illness related to the use of food supplements containing L-tryptophan, has been called a major public health problem by federal health officials. Physicians who call the EMS hotline will receive up-to-date clinical information on EMS. In addition, physicians may request physician-to-physician consultation on EMS.

### Roche reiterates warning on Accutane

Hoffmann-La Roche has announced additional actions it will take to provide further assurance that physicians and their patients understand that Accutane® (isotretinoin/Roche) should never be taken during pregnancy. Roche will emphasize warnings on the special Accutane blister packages and will establish a means of encouraging the return of unused Accutane at the end of treatment. Roche emphasizes that a pregnancy test must be negative before Accutane treatment is started

and that women should begin taking the drug on the second or third day of their menstrual cycles.

### NIH issues two consensus development statements

The National Institutes of Health (NIH) has issued two consensus developments statements on the Treatment of Destructive Behaviors in Persons with Developmental Disabilities and Sunlight, Ultraviolet Radiation and the Skin. The statements may be obtained by writing William H. Hall, Director of Communications, Office of Medical Applications of Research, National Institutes of Health, Building 1, Room 259, Bethesda, MD 20892.



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### **■**obituaries

#### William H. Altier, M.D.

Dr. Altier, 85, a former Fowler family practitioner, died May 30 in Florida.

He was a 1932 graduate of Northwestern University Medical School.

Dr. Altier was a family practitioner in Fowler for many years and was a staff physician at the Purdue University Student Hospital for 12 years. He retired in 1978.

#### Robert W. Briggs, M.D.

Dr. Briggs, 74, an Indianapolis physician since 1949, died May 22.

He was a 1945 graduate of the Howard University College of Medicine and an Army veteran of the Korean War.

Dr. Briggs was medical director at Fisher Guide Division of General Motors Corp. from 1980 to 1986. He was a member of the American College of Chest Physicians, the American Society of Internal Medicine and the American College of Physicians. He was the first recipient of the Whitney M. Young Jr. Service Award presented by the Boy Scouts of America for outstanding service to youth in America. He founded the Kiwanis Abe Lincoln Scholarship Award in 1976.

#### Dillon D. Geiger, M.D.

Dr. Geiger, 82, a retired Bloomington otolaryngologist, died May 26 at Bloomington Hospital.

He was a 1931 graduate of the Indiana University School of Medicine and an Air Force veteran of World War II.

Dr. Geiger was board certified and a member of the American Academy of Ophthalmology and Otolaryngology and the American College of Surgeons.

### Austacio F. Manzanares, M.D.

Dr. Manzanares, 67, a Terre Haute anesthesiologist, died June 2 at Terre Haute Regional Hospital.

He was a 1953 graduate of Manila Central University in the Philippines.

Dr. Manzanares opened his practice in Terre Haute in 1967 and retired from Regional Hospital in 1987. He continued as a part-time anesthesiologist at Clay County Hospital in Brazil.

#### John D. Miller, M.D.

Dr. Miller, 65, a Bluffton pulmonologist, died June 17.

He was a 1953 graduate of the Indiana University School of Medicine.

Dr. Miller, a member of the American Thoracic Society and the American College of Chest Physicians, was a member of the staff at Caylor-Nickel Hospital in Bluffton. He served on the Indiana Medical Licensing Board since 1979 and was board president for seven years, vice-president for two years and treasurer for one year. He had served as assistant director of hospitals for the Health and Hospital Corp. of Marion County, director of pulmonary disease service at Wishard Memorial Hospital, chairman of the Indiana Tuberculosis Council, president of the Mississippi Valley Conference on Chest Disease and director for Indiana to the American Lung Association in New York. He was a Murray E. Auerbach Medalist of the American Lung Association of Indiana and a Sagamore of the Wabash.

#### Guy Morford, M.D.

Dr. Morford, 81, a retired Bloomington anesthesiologist, died June 7 at the Bicknell Health Care Center.

He was a 1944 graduate of the

Indiana University School of Medicine and served in the Army Medical Corps in World War II.

Dr. Morford practiced in Kokomo, Owensboro, Ky., and Bloomington.

#### Lewis C. Robbins, M.D.

Dr. Robbins, 80, Indianapolis, the first chief of cancer control for the U.S. Public Health Service, died June 14.

He was a 1935 graduate of the Indiana University School of Medicine.

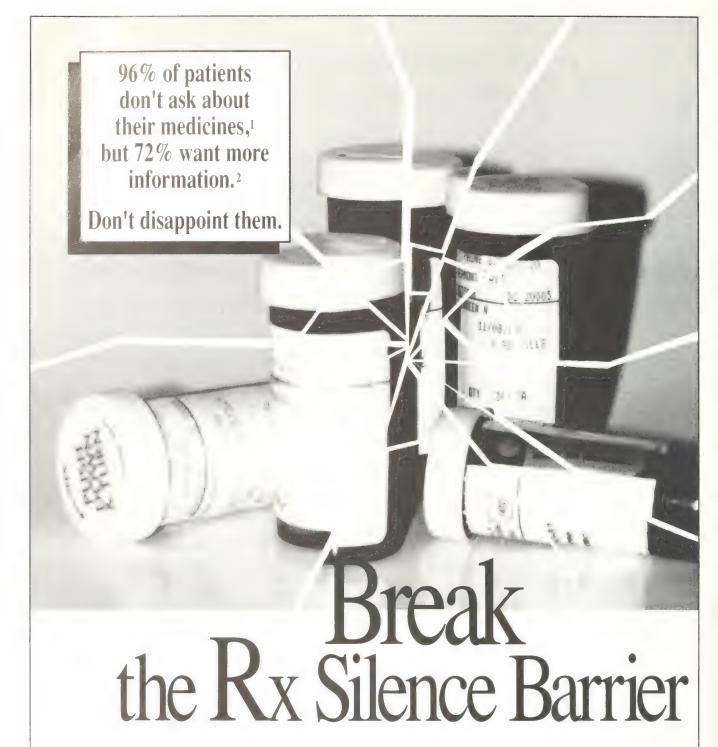
Dr. Robbins served as cancer chief from 1957 to 1965 and helped develop control programs for cancer of the lungs, cervix, breast and colon-rectum. He was a pioneer of the medical philosophy known as prospective medicine and first outlined his approach in his book, How to Practice Prospective Medicine, published in 1970. He retired from government service in 1968 and was chief of health hazard appraisal for Methodist Hospital in Indianapolis until 1974. He continued as a consultant to the hospital and as executive vice-president of Health Hazard Appraisal Inc. until his death. He was a member of the ISMA Fifty Year Club.

### Maurice R. Schmoyer, M.D.

Dr. Schmoyer, 69, a former Indianapolis pathologist, died March

He was a 1945 graduate of the University of Pennsylvania School of Medicine and was a Navy veteran of the Korean War.

Dr. Schmoyer was certified by the American Board of Pathology.



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FDA survey, "Patient Receipt of Rx Drug Information", 1983

<sup>&</sup>lt;sup>2</sup> A Study of Attitudes, Concerns, and Information Needs for Rx Drugs and Related Illnesses, CBS Television Network Consumer Model Survey, 1983



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### people

Dr. John H. Abrams, an Indianapolis ophthalmologist, spoke on the "Evaluation and Treatment of the Eye in the Emergency Room" at the 19th annual Indiana Academy of Emergency Physicians "500" Symposium May 4. Dr. Abrams recently was named a diplomate of the American Board of Ophthalmology.

Dr. Sanford S. Kunkel, an orthopaedic surgeon, will have an article published in the Aspen book, Operative Techniques in Shoulder Surgery; the article, "Rotator-Cuff Repair Utilizing a Trough in Bone," will be pub-

lished in October.

Dr. Randolph W. Lievertz, an Indianapolis family practitioner, was the invitational speaker at the St. Francis Hospital Clinical Conference Lecture Series in Milwaukee, Wis.; his topic was "Viral Infections of Herpetic Origin." He also was elected to the board of directors of the Indiana Academy of Family Physicians, representing the Seventh District.

Dr. Scott A. Shapiro of Indianapolis was named a diplomate to the American Board of Neurosurgery. His paper on cervical osteochondromas was published in the May 1990 issue of *Spine*.

**Dr. Harry M. Sanders**, a Carmel emergency medicine specialist, was elected secretary of the Little Red Door Marion County Cancer Society board of directors.

Dr. Alan H. Johnson, an orthopaedic surgeon, was elected president of the medical staff of Deaconess Hospital in Evansville. Also elected were Dr. Thomas K. Browne, a pulmonary disease specialist, president-elect, and Dr. Roy A. DeFries, a family practitioner, secretary-treasurer.

**Dr. Larry C. Hughes** of Mooresville was named Outstand-

#### Physician Recognition Award recipients

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Aeshliman, Dale H., Fort Wayne Aldred, Allen W., Fort Wayne Baker, Glenn W., Indianapolis Boha, Rudolf L., Floyds Knobs Goode, Robert J., Columbus Gourieux, Edward DeVerre,

Evansville
Hardin, Stephen L., Martinsville
Harris, Garnet R., Danville
Huss, Richard G., Muncie
Johns, Janet S., Lafayette
Kays, Larry P., Evansville
Kerr, Bruce J.A., Bluffton
Koss, Kenneth W., Muncie
LaSalle, Robert M., Wabash
Lovall, Larry D., Danville
Luxenberg, Edwin R., Logansport

Marhenke, Jon D., Indianapolis McPike, Joseph D., Indianapolis Mellinger, Michael O., LaGrange Merkle, George W., Bluffton Moran, Thomas E., Indianapolis Priddy, Marvin E., Fort Wayne Pugh, Newell O. Jr., Indianapolis Pyle, Susan K., Union City Rea, Ralph L., Greenfield Rigaux, Armand J., South Bend Schloss, Robert P., Fort Wayne Servies, Herschell Jr., Lebanon Shah, Priya N., Fort Wayne Siebenmorgen, Paul, Terre Haute Strate, Bonnie R., Indianapolis Waran, Somsak, Valparaiso

ing Young D.O. of the Year by the Indiana Association of Osteopathic Physicians and Surgeons.

**Dr. Henry W. Conrad** of Law-renceburg retired May 25, after 42 years as a family practitioner.

Drs. Roberto D. and Sofia S. Valenzuela, a husband and wife who shared a medical office in Merrillville for 20 years, retired July 1. Roberto is a family practitioner, and Sofia is a pediatrician.

**Dr. Daniel J. Herman**, a Vincennes orthopaedic surgeon, was elected president of the Indiana Orthopaedic Society.

**Dr. Oscar G. delaPaz**, a urological surgeon, is the new president of the medical staff at St. Anthony Medical Center in Crown Point.

**Dr. Amos Arney**, a Michigan City general practitioner, received

the Salvation Army's "Others Award" for his outstanding service to the community; he was honored for his work in providing physical examinations for children and for starting a free clinic in Michigan City.

Dr. Raymond W. Nicholson Jr., an Evansville family practitioner, was the first recipient of the Distinguished Alumni Service Award from the Indiana University Alumni Club of Vanderburgh County.

Dr. Stephen W. Perkins, an Indianapolis maxillofacial surgeon, was appointed chairman of the Public Information Committee of the American Academy of Facial Plastic and Reconstructive Surgery.

**Dr. Daniel E. Scherb**, a South Bend cardiologist, was elected

president of the St. Joseph County division of the American Heart Association.

**Dr. Kevin R. Burke**, a Jeffersonville internist, was appointed health officer of Clark County.  $\square$ 

New ISMA members Carlos E. Amaya, M.D., Morristown, family practice.

Oskar Arnbjarnarson, M.D., Indianapolis, oncology.

William C. Bechtel, M.D., Evansville, diagnostic radiology.

Mary L. Bundy, M.D., New Albany, pediatrics.

Joseph J. Evans, M.D., Indianapolis, cardiovascular diseases.

**Thomas J. Fox**, M.D., Columbus, emergency medicine.

**Brice A. Guckien**, M.D., Danville, anesthesiology.

Mark A. Hall, M.D., Muncie, anesthesiology.

Frederick N. Hamly, M.D., Indianapolis, pulmonary diseases. Kurtis A. Hull, M.D., Indianapolis, internal medicine.

William L. Irwin II, M.D.,

Indianapolis, general practice. **Paul C. Madison**, M.D.,

Michigan City, anesthesiology. **John T. Mail**, M.D., Indianapolis, diagnostic radiology.

Jonathan A. Mandelbaum, M.D., Indianapolis, general surgery

John E. Marvel, M.D., Anderson, therapeutic radiology.

**Bruce H. Matt**, M.D., Indianapolis, otolaryngology.

Peter W. McCauley, M.D., Indianapolis, pediatrics.

Glenn B. Poteat, M.D., Muncie, diagnostic radiology.

Glenn R. Schwenk Jr., M.D., Indianapolis, anatomic pathology. Sally D. Slowman, M.D.,

Indianapolis, rheumatology. Harold E. Stoner, M.D., Bloomington, psychiatry.

Dennis W. Vane, M.D., Indianapolis, pediatric surgery.

Residents

James R. Baker, M.D., Mishawaka, family practice.

**Brian D. Clarke**, M.D., Indianapolis, gastroenterology.

**Arthur F. Coli**, M.D., Indianapolis, ophthalmology.

Barbara R. Davis, M.D., Indianapolis, family practice.

Mark W. Del Bello, M.D., Indianapolis, internal medicine.

James L. Dunn, M.D., Muncie, internal medicine.

**Paige F. Huls**, M.D., Indianapolis, internal medicine.

James W. John, M.D., Indianapolis, internal medicine.

**Yvonne R. Kozak**, M.D., Indianapolis, internal medicine.

**Thomas J. Melham**, M.D., Muncie, internal medicine.

Collette L. Mercier, M.D., Indianapolis, internal medicine.

**Barry H. Miller**, M.D., New Albany, anesthesiology.

**Robert J. Oesterling**, M.D., Indianapolis, general surgery.

David S. Phillips, M.D.,

Elkhart, pediatrics.

Sumita Ram, M.D., Indianapolis, pediatrics.

John D. Wagel, M.D., Fort Wayne, family practice.

Simon K. Wu, M.D., Indianapolis, family practice. □

### Mark Your Calendars!

The 1990 ISMA convention will be held Nov. 2-4 at the Radisson Hotel in Indianapolis. Convention highlights will include "Flashback to the Fifties," the third annual theme party; the annual IMPAC luncheon, featuring John Dancy, NBC News Senate Correspondent; and the President's Night dinner with Jimmy Coe and his orchestra. Tina Dillard, ISMA's reimbursement coordinator, will conduct a Medicare seminar during the general education session.

In addition, three ISMA districts will hold afterglows to honor their candidates. For more information, contact Denise Le Doux at the ISMA, (317) 925-7545 or 1-800-969-7545.

### classifieds

PHYSICIANS. CAREERS THAT MAKE A DIFFERENCE. Make a difference - join the U.S. Pharmaceutical Group's Medical Department at Bristol-Myers Squibb Co. If you've completed your residency in internal medicine, family practice, pediatrics or another broad medical specialty and possess a strong background in academic or clinical medicine, explore the contributions you could make in one of the following areas: Clinical Studies - Probing for new ways in treating disease, this challenge involves setting up, monitoring and evaluating phase III and phase IV research studies. If your expertise focuses on the central nervous system, cardiovascular, endocrine/ metabolism or anti-infective drugs, join our research team. Medical Services - Consulting with practicing physicians and the scientific community, you will review and approve label and promotion material. You'll also monitor drug experience reports and advise our marketing and sales department executives. Located in pleasant Evansville, Ind., a community rich in educational, cultural, recreational activities and more, our continued growth will generate significant opportunities to advance your career. In addition, we offer outstanding salaries and generous benefit packages, including relocation assistance. For confidential consideration, send your resume to: Bristol-Myers Squibb, Employment Department, 6L08, 2400 W. Lloyd Expressway, Evansville, IN 47721-0001. An Equal Opportunity Employer M/F/H/V.

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EMERGENCY MEDICINE - GENERAL PRACTICE: Expanding emergency medicine-general practice contract group needs general practice physician for central Indiana facility. Guaranteed salary and vacation. Contact Preferred Medical Management, P.O. Box 1897, Marion, IN 46952.

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PEDIATRICIAN - 235-bed JCAHOaccredited acute care hospital's medical staff offers career opportunity for board-certified (or eligible) pediatrician. Central Indiana location in community of nearly 40,000 and service of more than 85,000 with excellent educational, cultural and recreational opportunities affords easy access to major metro areas. Qualified applicants should submit resumes in confidence to: John W. Green, Administrator, Marion General Hospital, Wabash at Euclid Ave., Marion, IN 46952, or R. Lee Walton, M.D., Chief of Pediatrics, Marion General Hospital, Wabash at Euclid Ave., Marion, IN 46952.

### classifieds

GASTROENTEROLOGIST - 235-bed JCAHO-accredited acute care hospital's medical staff offers career opportunity for board-certified (or eligible) gastroenterologist. Central Indiana location in community of nearly 40,000 and service area of more than 85,000 with excellent educational, cultural and recreational opportunities affords easy access to major metro areas. Qualified applicants should submit resumes in confidence to: John W. Green, Administrator, Marion General Hospital, Wabash at Euclid Ave., Marion, IN 46952.

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#### Advertising index

Bell Atlantic Tricon Leasing614
Central Pharmaceuticals610
The Ear Institute of Indiana614
HealthCare Managers & Consultants563
International Tours588
Lilly, Eli & Co553
Lincoln National Life617
Medical Protective Co
Merck Sharp & DohmeCovers
The Monroe Clinic
Nat'l. Council on Patient Info. & Education616
Palisades Pharmaceuticals548
Physicians Billing Service of Indiana580
Physicians' Directory590
Physicians Insurance Co. of IndianaCover
Roche Laboratories
G.D. Searle & Co555, 556, 557, 558
Spectrum Emergency Care622
Terre Haute Autoplex610
U.S. Air Force
U.S. Army National Guard567
Van Ausdall + Farrar581

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### VASOTE (ENALAPRIL MALEATE MSD)

VASOTEC is available in 2.5-mg, 5-mg, 10-mg, and 20-mg tablet strengths.

Contraindications: VASOTEC® (Enalapril Maleale, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor

mis product and in patients with a history of angioecema related to previous freatment with an ALE inhibitor.

\*\*Warnings: \*\*Angioecema\*\* Angioecema of the face, extremities, lips, longue, glothis, and/or largyx has been reported in patients freated with ACE inhibitors, including VASOTEC in such cases. VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears in instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioecema associated with laryingeal edema may be fall. \*\*Where there is involvement of the tongue, glothis, or laryix likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (8.3 mL to 0.5 mL), should be promptly administered. (See ADVERSE REACHONS)

REACTIONS)

Hypotension: Excessive hypotension is rare in uncomplicated hypotension breated with VASOTEC alone Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed; caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION). Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azoteria and rarely with acute renal failure and/or death, include those with the following conditions or characteristics heart failure, hyponatremia, high-dose duretic therapy, recent intensive diuress or increase and functed dose, renal dialysis, or severe volume and/or salt depletion of any effollogy. If may be advisable to eliminate the durietic dose, continuity with heart failure, reduce the durietic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerale such adjustments. (See PRECAUTIONS, Drug interactions and ADVERSE REACTIONS) in patients at risk for excessive hypotension therapy should be stated under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalgorial and/or durietic is increased. Similar considerations may apply to patients with ischience heart disease or cardiovascular accident. If excessive hypotension occurs, the patient should be placed in the supried infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supried infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supried infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supried continuity of the first two decessive hypotensions of the patients with s diuretic may be necessary

Neutropenal/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rariety in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical finals of enalapiral en insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered

Precautions: General Impaired Renal Function: As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death

In clinical studies in hyperlensive patients with unitateral or bilateral renal artery stenosis, increases in blood urea introgen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diurelt. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION.)

Hyperkalerma. Elevated serum potassium (>57 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyper-kalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant

use of potassium-spaning diuretics, potassium supplements, and/or potassium-containing salf substitutes, which should be used cauliously, if at all, with VASOTEC (See Drug Interactions). Surgery/Anesthesia. In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiglensin. If formation secondary to compensatory remin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion

Information for Patients

Angioedema. Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril Patients should be so advised and hold to report immediately any signs or symptoms suggesting angioedema (swell-ing of face, extermities, eyes, lips, longue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension: Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be fold to discontinue the drug until they have consulted with the prescrib-

All patients should be cautioned that excessive perspiration and delityritation may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure, patients should be advised to consult with the physician.

Hyperkalemia Patients should be told not to use salt substitutes containing potassium without consulting their

Neutropenia Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may

NOTE. As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions

Hypotension Patients on Diuretic Therapy. Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the saif intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release. The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Olher Cardiovascular Agents VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyl-dopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions

Agents Increasing Serum Polassium VASOTEC attenuates polassium loss caused by thiazide-type diuretics Polassium-sparing diuretics (e.g., spironolactone, triamferene, or amiloride), polassium supplements, or polassium-containing sall substitutes may lead to significant increases in serum polassium. Therefore, if concomilant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum polassium. Polassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

Lithium Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elim-ination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

Pregnancy—Category C. There was no fetotoxicity or feratogenicity in rats treated with up to 200 mg/kg/day of enalaphi (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalaphi but did not occur when these animals were supplemented with saline Enalaphi was not feratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta. Because the risk of fetal foxicity with the use of ACE inhibitors has not

been clearly defined, VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal mor-bidity and mortality

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Digohydramnos in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguira, and hyperkalema. If oliguira occurs, aftention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ducture afterious have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypertension, or the underlying prematurity.

Nursing Mothers: Milk in lactating rats contains radioactivity following administration of <sup>14</sup>C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use Safety and effectiveness in children have not been established

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

HYPERTENSION The most frequent clinical adverse experiences in controlled trials were headache (5.2%), dizziness (4.3%), and fatigue (3%)

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%) HEART FAILURE The most frequent clinical adverse experiences in both controlled and uncontrolled trials were dizziness (7 %), hypotension (6 7%), orthostatic effects (2 2%), syncope (2 2%), cough (2 2%), chest pain (21%), and diarrhea (2 1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were latigue (18%), headache (18%), abdominal pain (16%), asthema (16%) orthostatic hypotension (16%), vertiging (16%), angina pectors (15%), nausea (13%), vomiting (13%), bronchitis (13%) dyspriea (13%), urmary tract infection (13%), ash (13%), and myocardial infarction (12%)

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each

Cardiovascular Cardiac arrest, myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, Hypotension), pulmonary embolism and infarction, pulmonary edema, rhythm distributances, atrial fibrillation, palpitation Digestive flieus, pancreatitis, hepatitis (hepatocellular or cholestatic jaundice), melena, anorexia, dyspepsia, con-stipation, glossitis, stomatitis, dry mouth

Musculoskeletal Muscle cramps

Nervous/Psychiatric Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia

Urogenital Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION) Respiratory Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection

Skin Extoliative dermatritis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multi forme, urticaria, pruritus, alopecia, flushing, hyperhidrosis

Special Senses Blurred vision, taste alteration, anosmia, linnitus, conjunctivitis, dry eyes, tearing

A symptom complex has been reported which may include a positive ANA, an elevaled erythrocyte sedimentation rate, arthratquas/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermatologic manifestations.

Angioedema Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be Itala II angioedema of the face, extremities, lips, longue, glottis, and/or larynx occurs, irealment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Then with PASCIES should be discontinuous application the properties of the hypotension. In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings

Serum Electrolytes Hyperkalemia (see PRECAUTIONS), hyponatremia

Greatinne, Blood Urea Mitogen In controlled clinical trials, mnor increases in blood urea nitrogen and serum cre-atinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hyperten-sion freated with VASOTEC atone Increases are more likely to occur in patients receiving concomitant diurefics or in patients with renal artery stenosis (See PRECAUTIONS) in patients with heart failure who were also receiving durefics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon dis-continuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients

Hemoglobin and Hematocrit Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g% and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASDTE but are rarely of clinical importance unless another cause of ahemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

Other (Causal Relationship Unknown) In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD

Liver Function Tests Elevations of liver enzymes and/or serum bilirubin have occurred

Dosage and Administration: Prepare engines among the engines and administration: Properties of the possible of the properties of the prope two hours and until blood TIONS, Drug Interactions )

The recommended initial dose in patients not on diurelics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval in such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with polassium supplements, polassium salt substitutes, or polassium sparing diuretics may lead to increases of serum polassium (see PRECAUTIONS)

Dosage Adjustiment in Hypertensive Patients with Renal Impariment. The usual dose of enalapril is recommended for patients with a creatinine clearance > 30 ml/min (serum creatinine of up to approximately 3 mg/dL). For patients with a creatine clearance 2 30 ml/min (serum creatinine > 3 mg/dL), the first dose is 2 5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily

Heart Failure VASOTEC is indicated as adjunctive therapy with distretics and digitals. The recommended starting
does is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical
supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS. Drug Interactions.) If possible, the dose of the duretic should be reduced, which may
diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not
preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The
maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in
his study were given 40 mg., the maximum recommended daily dose, and there has been much more experience with
hwice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with
were heart failure. (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always
administered in two divided doses. (See CLINICAL PHARMACOLOGY, Pharmacodynamics and Olinical Effects.) Dosage
may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia in patients with heart failure who have hyponatremia (serum sodium < 130 mEq/L) or with serum creatinine > 1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, Heart ated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, Heart patients) in the dose may be increased to 2.5 mg bird, then 5 mg bird and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg

For more detailed information, consult your MSD Representative or see Prescribing Information, Merck Sharp & Dohme, Division of Merck & Co., INC., West Point, PA 19486 J9VS61R2(819)





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wasored is hanerally well released and reacherantenzed by certain undesirable effects associated with selected agents in other antihypertensive classes.

VASOTEC is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor. A diminished antihypertensive effect toward the end of the dosing interval can occur in some patients.

For a Brief Summary of Prescribing Information, please see the last page of this advertisement.

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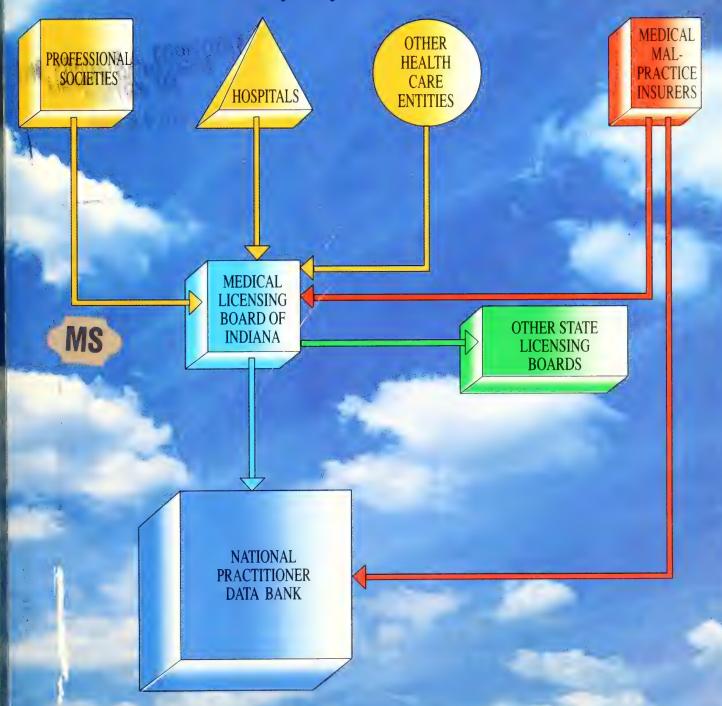
## INDIANA MEDICINE

The Journal of the Indiana State Medical Association

September 1990

Vol. 83, No. 9

National Practitioner Data Bank: What Every Physician Should Know



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## INDIANA MEDICINE

The Journal of the Indiana State Medical Association

September 1990

Vol. 83, No. 9

### scientific contributions

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Cover story on page 660. Cover art by Celeste Design & Associates, Indianapolis.

### departments

stethoscope	625
from the museum	626
what's new	628
cme calendar	630
cme quiz	640
drug names	647
letter to the editor	666
auxiliary report	667
news briefs	688
obituaries	689
people	690
correction	691
classifieds	692

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## ■ stethoscope

## ISMA, Sentinel form committee to discuss concerns

Members of the ISMA Sentinel Liaison Committee and representatives of Sentinel met recently for the first time. The two groups will continue to meet periodically to discuss concerns that organized medicine has about Sentinel, the peer review organization (PRO) for Indiana. Topics discussed at the meeting included educating physicians about the review process and physicians' appeal rights and increasing physician involvement in the review process.

Sentinel said timeliness standards for its response to physicians currently are difficult to meet because it must sort and resolve a backlog of old cases left by Peerview, the former Indiana PRO. Sentinel's response time also is slowed by a lack of physicians involved in the review process for the specialties of ophthalmology, psychiatry, cardiovascular surgery, cardiology and orthopaedic surgery.

Members of the ISMA liaison committee are: William Ducey, M.D., Richmond; Daniel J. Edwards, M.D., Marion; Mathew Farber, M.D., Fort Wayne; Jon Kubley, M.D., Plymouth; George N. Lewis, M.D., Bloomington; Michael Mastrangelo, M.D., Fort Wayne; Thomas Neathamer, M.D., Jeffersonville; Michael Pauszek, M.D., Franklin; William Ringer, M.D., Williamsport; R. Kenneth Spear, M.D., Evansville; H. Marshall Trusler, M.D., Greenfield; Thomas Vidic, M.D., Elkhart; and James E. Bennett, M.D.; Chris Jones, M.D.; Robert Mouser, M.D.; William R. Nunery, M.D.; and George Rawls, M.D., all of Indianapolis.

## AMA lists new headquarters address, phone number

The American Medical Association has moved to its new headquarters. The new address is 515 N. State St., Chicago, IL 60610. The main phone number is (312) 464-5000.

## Plan to attend 141st annual ISMA convention Nov. 2 to 4

ISMA members are reminded to make plans to attend the 141st annual convention Nov. 2 to 4 at the Radisson Hotel in Indianapolis. Events will include the meeting of the House of Delegates, the IMPAC luncheon, a '50s theme reception, a general education session and President's Night.

NBC News Correspondent John Dancy will talk on "Washington, the World and George Bush" at the IMPAC luncheon Nov. 3. He has covered the U.S. Senate for the past five years for the "NBC Nightly News."

Tina Dillard, ISMA's reimbursement coordinator, will conduct the general education session from 2 to 5 p.m. Nov. 3. The President's Night reception and dinner/dance honoring outgoing ISMA President George Rawls, M.D., will be Nov. 3. Jimmy Coe and his orchestra will perform.

A convention brochure is being mailed this month.

## from the museum

Volunteers are crucial to all not-for-profit organizations. In fact, many smaller, underfunded organizations could not exist without volunteers. The Indiana Medical History Museum is no exception. Volunteers perform important functions at the museum, and more are needed.

A recent poll indicates that 47% of Americans are regular volunteers. Of these individuals, 31% give at least two hours per week to volunteer projects. Slightly more men volunteer than women (47% of all men volunteer and 46% of all women volunteer).

More men and young and elderly people are volunteering than ever before. All economic groups are involved. Research indicates that 45% volunteer because they want to be useful, help others and do good deeds. A significant number, 35%, have an interest in the activity or work.

Both men and women volunteer at the Indiana Medical History Museum, and they vary from high school students to retirees. Their activities vary.

Walter Tinsley, M.D., a retired Indianapolis anesthesiologist, has volunteered at the museum since 1989. Last year, he worked on the museum's corporate campaign, and this year, he catalogued artifacts. Because of his efforts, more than 100 artifacts have been inventoried or catalogued. He also is an active member of the museum's board of trustees.

William Heaton, a retired laboratory technician, has been a

musuem volunteer since 1988. More than 200 items in the historical laboratories have been catalogued because of his laboratory equipment knowledge. He also has helped rearrange the museum's storage areas to accommodate more artifacts.

Mrs. John E. Jesseph has volunteered since 1987. She has filed catalog cards and given presentations and tours to hundreds of museum visitors. She also is an active member of the board of trustees.

Ann Blunk, an Indianapolis librarian, began volunteering this year. She has catalogued more than 300 volumes of the museum's late 19th-century and early 20th-century works.

Two students joined the museum's volunteer staff this summer. Emily Hopkins, a sophomore at Martinsville High School, helps mail press releases, file catalog cards and perform other tasks. Hazel Navarro, a student at Indiana University-Purdue University at Indianapolis, helps organize the museum's artifacts collection and is training to be a guide.

During the last eight years, many other volunteers have helped the museum. On average, these volunteers collectively donated 10 hours per week or 4,160 hours total. If the museum had paid the previous minimum wage of \$3.35 per hour, it would have spent \$13,936 for these services.

The Indiana Medical History Museum is a small organization with one half-time curator and one half-time assistant, although consultants recommend hiring at least two full-time staff members. Because the museum lacks the money to hire additional employees, it relies on volunteers to provide important services. These services may not be provided if it were not for volunteers.

The museum needs more volunteers, particularly in collection, tours and, most importantly, fund raising. If you would like to volunteer, contact the Indiana Medical History Museum, 3000 W. Washington St., Indianapolis, IN 46222, (317) 635-7329. □

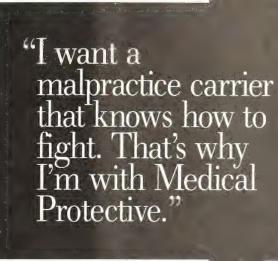
### News from the museum

• The museum would like to thank the following individuals for donating to the museum's operating support campaign (in addition to those listed in the July and August issues of INDIANA MEDICINE):

Dr. & Mrs. Robert M. Kelsey Jr. Drs. David A. & Peggy L. Kovach Joseph L. Steinem, M.D.

• The exhibit "Lifting the Veil of Secrecy: The Public Response to AIDS in Historical Perspective" will run until Sept. 30.

• John Cornell, assistant professor of history at Butler University in Indianapolis, will present "The Birth of the Clinic: Psychiatric Reforms around 1900" at the museum Sunday, Oct. 14, at 2 p.m. Guests can tour the museum and view the display of rare psychiatry books. The lecture is made possible by a grant from the Indiana Humanities Council and the Indiana Historical Society.



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## what's new

The Hewlett-Packard Co. has introduced HP SONOS 100 vascular imaging system, a comprehensive duplex ultrasound system designed for the office and the hospital. Using advanced integrated-circuit technology, the HP SONOS 100 combines B-mode imaging with sensitive Doppler in a compact system. Hewlett-Packard also has introduced two new full-featured cardiographs for hospital and private physician use, the HP PageWriter XLi and the HP PageWriter XLs.

Disposal Sciences, Inc. has introduced a Sharps Disposal System to safely decontaminate and dispose of medical sharps at their points of use. The system consists of two separate components - a reusable collection unit and a central processing unit. Used syringes and other materials are placed in a collection unit immediately after care is administered. Once inside this unit, materials are inaccessible and never touched by human hands again.

**Springhouse Publishing Co.** has released the "Emergency

Video Series," containing six 30-minute, full-color videos. Each video focuses on the essential skills necessary to cope with specific emergencies. Topics include cardiac arrest, cardiac and diabetic emergencies, emergency airway problems, acute respiratory failure and shock. A 24-page booklet also is included.

The Syntex Corp. has developed an injectable non-steroidal anti-inflammatory analgesic as an alternative to narcotics for the short-term management of pain. The Toradol<sup>®</sup> Intramuscular Injection is expected to be prescribed in both inpatient and outpatient settings by anesthesiologists and general and orthopaedic surgeons to relieve postoperative pain. Emergency medicine and primary

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care physicians may prescribe it for the relief of a variety of painful conditions.

Midmark Corp. has introduced the M8+ EasyClave Self-Contained Steam Sterilizer. This lightweight, portable sterilizer features a self-locking cover, pressure control valves and a lowwater precautionary system. The M8+ comes with a removable instrument basket, dividers and spare gaskets. It can be cleaned with soap and water.

Tucker Designs, Ltd. has developed The Tucker Sling, a crib accessory that maintains a prescribed sleeping position for infants suffering from apnea and gastroesophageal reflux. The sling fits over the raised head of a mattress, like a contour sheet. The lower, diaper-shaped section fits between an infant's legs and fastens around his waist with interlocking nylon fasteners. It also may be used for children with cerebral palsy and children with respiratory, digestive and cardiac problems.

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### mcme calendar

Methodist Hospital

Methodist Hospital of Indiana will sponsor the following CME courses:

courses:

Sept. 19 – Physician Well-Being: Your Key to Success, Methodist Hospital, Petticrew Auditorium, Indianapolis.

Sept. 26 – Pediatric Update, Methodist Hospital, Petticrew Auditorium, Indianapolis.

Sept. 27 – Risk Management, Methodist Hospital, Petticrew Auditorium, Indianapolis.

Oct. 5-6 – Advanced Cardiac Life Support, Methodist Hospital, Wile Hall, Indianapolis.

Oct. 18-19 – 11th Annual Harold C. Ochsner Radiology Lectureship, Methodist Hospital, Indianapolis.

Nov. 7 — Ninth Annual Pediatric Critical Care
Symposium: Pediatric Critical Care
Pharmacology,
Methodist Hospital,
Wile Hall, Room 320,
Indianapolis.

Nov. 7 - Practical Topics in the Care of the Elderly: Lester Bibler Day, Methodist Hospital, Petticrew Auditorium, Indianapolis.

For more information, call Dixie Estridge, (317) 929-3733.

St. Vincent Hospital

St. Vincent Hospital and Health Care Center will sponsor "Richter Day" Oct. 5 at the Radisson Hotel in Indianapolis.

For information, call Beth Hartauer, (317) 871-3460.

Indiana University

The Indiana University School of Medicine will sponsor the following courses:

Sept. 20-22– 12th Annual Conference on Interdisciplinary Health Care Team, University Place Executive Conference Center and Hotel, Indianapolis.

Sept. 21 - Oxygen Transport, University Place Executive Conference Center and Hotel, Indianapolis.

Sept. 21 – Tri-State Craniofacial Conference, University Place Executive Conference Center and Hotel, Indianapolis.

Sept. 24-26— Echocardiography in Coronary Artery Disease, University Place Executive Conference Center and Hotel, Indianapolis.

Sept. 27 – Gastroenterology Update 1990, University Place Executive Conference Center and Hotel, Indianapolis.

Oct. 1-4 – Clinical Electrocardiography: Cardiovascular Board Review, University Place Executive Conference Center and Hotel, Indianapolis.

Oct. 12 - Indiana Neonatal
Society Meeting,
University Place
Executive Conference Center and
Hotel, Indianapolis.

Oct. 23-24 – 18th Annual Fall Symposium, Care of the Seriously Ill Child, University Place Executive Conference Center and Hotel, Indianapolis.

Oct. 24 – Current Issues in Perinatal Care, University Place Executive Conference Center and Hotel, Indianapolis.

Oct. 25 – Geriatric Medicine for the General Practitioner, Reid Memorial Hospital, Richmond, Ind.

For information, call Melody Dian, (317) 274-8353.

St. Mary's Medical Center

St. Mary's Medical Center in Evansville will sponsor these CME courses:

Sept. 20 – Entering 21st Century in Cancer Therapy, Tri-State Radiation and Oncology Center, Evansville.

Oct. 11 - Annual Family
Medicine Seminar:
FAT - Origins, Distribution, Significance, St. Mary's
Medical Center, The
Amphitheatre,
Evansville.

For information, call W. Thomas Spain, M.D., (812) 479-4000.

The Ear Institute of Indiana

"Perspectives in Otitis Media: Diagnosis and Management" will be discussed Oct. 10 at the Eli Lilly Auditorium in Indianapolis.

The course is sponsored by The Ear Institute of Indiana, Indiana University School of Medicine, Purdue University Department of Audiology & Speech and Eli Lilly & Co.

For additional information about this course, call The Ear Institute, (317) 842-4757 or 1-800-522-0734. □



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- Dosage for adults with active duodenal ulcer is 300 mg once nightly (150 mg b.i.d. is also available)

- USP DI Update, September/October 1988, p 120
- Br J Clin Pharmacol 1985, 20:710-713
- Data on file, Lilly Research Laboratories
- <u>Scand J Gastroenterol</u> 1987;22(suppl 136):61-70 <u>Am J Gastroenterol</u> 1989,84 769-774

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**Precautions:** General – 1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy

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Laudratory less rease-positive tests for unonlinogen with multisix may occur during therapy Drug interactions—No interactions have been observed with theophyl-line, chloridazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450 enzyme system; therefore, drug unteractions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increased serum salcylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently Carcinogenesis, Mutagenesis, Impairment of Fertility—A two-year oral

carcinogenesis, mutagenesis, impairment or retrilly—A two-year ortal carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaftin-like (ECL) cells in the gastric oxynitic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepathe nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given

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an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagencity battery are not considered evidence of a carcinogenic potential for Axid

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the

To mizatione by to cost injury/acy produce in adverse effects on the reproductive performance of parental animals or their progeny. Pregnancy—Teratogenic Effects—Pregnancy Category C—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect, but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions. equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live letuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomally, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether mixatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizabdine should be used during pregnancy only if the notential herefit justifies the notential lisk for pregnancy only if the potential benefit justifies the potential risk to

Nursing Mothers-Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing

or the drug, taking into account the importance of the drug to the mother Pediatric Use-Safety and effectiveness in children have not been established

Use in Elderly Patients—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs. 0.2%), urticaria (0.5% vs. <0.01%), and somnolence (2.4% vs. 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug

Axid® (nizatidine, Lilly)

Hepatic — Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizabdine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SG0T or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

Cardiovascular—In clinical pharmacology, studies short ensydes.

Cardiovascular—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

administrated And and in three interacts supports.

CNS—Rare cases of reversible mental confusion have been reported.

Endocrine—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported write. reported rarely.

Hematologic—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H<sub>2</sub>-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs.

Rare cases of thrombocytopenic purpura have been reported.

Integumental – Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and

refoliative dermatitis were also reported.

Hypersensitivity—As with other H<sub>2</sub>-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H<sub>2</sub>-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been

-Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been

Overdosage: Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%.

Additional information available to the profession on request



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Symptoms? Ear pain, aural pressure, hearing loss, fever.

Treatment? Head elevation, analgesia, antibiotics; surgery may be needed if medications

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## Pregnancy, abruptio placentae and cocaine



### Abstract

Widespread cocaine use has caused concern about possible harmful effects during pregnancy. Several studies have suggested an increased incidence of abruptio placentae and stillbirths with cocaine use during pregnancy. This study examined what percentage of pregnant women in a lower socioeconomic population use cocaine, as well as positive urine cocaine screens in those with abruptio placentae and intrauterine fetal death (IUFD).

Thirty patients were enrolled in the control group, eight in the abruptio placentae group and five in the IUFD group. One of 30 controls, one of eight in the abruptio placentae group and none of the IUFD group urines were positive for cocaine. A higher percentage of those in the abruptio placentae group had a history of abruptio placentae or fetal death, suggesting possible prior drug use. This group also had little, if any, prenatal care. Cocaine abusers may show signs of abuse in their obstetrical histories.

Beth Norman, M.D. Richard S. Hansell, M.D. Michael A. Evans, Ph.D. Indianapolis

The National Institute on Drug Abuse estimated in 1986 that 3 million people abused cocaine regularly, and nearly 15% of the U.S. population had tried cocaine, with almost 40% between ages 25 and 30.1 A study based on information from a 1987 demographic survey obtained through a national cocaine hotline found that cocaine abusers in general are younger, poorer, less educated and more likely to be unemployed than in similar surveys conducted two to four years earlier.<sup>2</sup>

This trend will continue, if not

escalate, because of the growing popularity of crack, a highly potent and relatively inexpensive form of cocaine. One of every five female callers in the abovementioned 1987 survey used cocaine during pregnancy. It is likely the number of cocaine-dependent pregnant women requesting care also will escalate.

Harmful effects of cocaine use during pregnancy include possible teratogenicity, spontaneous abortion, growth retardation, preterm delivery, abnormalities in neonatal behavior, abruptio placentae or stillbirth. Cocaine is readily absorbed through mucous membranes and rapidly metabolized by liver and plasma esterase enzymes to water soluble substances excreted in the urine. Its high

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water and lipid solubility, low molecular weight and ionization at physiologic pH facilitate its diffusion across the placental barrier. Its effects of tachycardia, elevated blood pressure and vasoconstriction result from increased levels of circulating catecholamines. Cocaine mediates this effect by blocking the uptake of catecholamines at adrenergic nerve endings, thus increasing their concentrations at the effector terminals and blood stream. Plasma cholinesterase activity is lower in the fetus than in the adult and decreases to a lesser degree during pregnancy, resulting in even slower metabolism.

Maximum cocaine concentrations are reached 30 to 40 minutes after use and persist longer after intranasal inhalation than via intravenous injection or smoking. The terminal half-life (1.5 hours) of cocaine is the same for all routes of administration. Approximately 70% of the dose can be recovered in the urine after two to three days. Benzoylecgonine is the major metabolite found in urine.<sup>8</sup>

To study the effect of cocaine on fetal oxygenation, Woods et al9 studied pregnant ewes and their singleton fetuses. The results showed that maternal administration of cocaine produced dosedependent increases in maternal blood pressure and decreases in uterine blood flow. The study also noted marked fetal hypoxia, hypertension and tachycardia. Direct cocaine administration to the fetus produced smaller increases in fetal heart rate and blood pressure compared to those following maternal cocaine injection, and no significant change in fetal blood gas values was noted.

Several studies have linked cocaine use to abruptio placentae.

Bingol et al<sup>6</sup> studied three groups of pregnant women and their children. Group one included 50 women who abused cocaine; group two included 110 women who were poly-drug abusers; and group three, the control group, contained 340 drug-free women. The stillbirth rate was significantly higher in group one than in groups two and three (8% versus 0.8% respectively). All stillbirths were related to abruptio placentae. In group one, two stillbirths occurred shortly after smoking cocaine, one after intravenous injection and one after intranasal administration. In group two, two stillbirths occurred after selfinjection of a "speedball," a combination of heroin and cocaine.

Chasnoff et al<sup>10</sup> compared pregnancy outcomes from 23 cocaine users with outcomes from patients receiving methadone and from drug-free patients. Four cocaine users began labor with abruptio placentae immediately after self-injection. There were no instances of abruptio placentae in the control or methadone only groups. In addition, several cocaine users reported uterine contractions and increased fetal activity within minutes of using cocaine.

Acker et al<sup>11</sup> has described two cases of abruptio placentae following cocaine administration, resulting in one severely depressed newborn and one stillbirth.

This study was conducted at Wishard Memorial Hospital, a part of the Indiana University Medical Center in Indianapolis, from November 1988 through April 1989. Wishard Hospital is the charity hospital for Marion County and primarily serves indigent patients. The purpose of the study was to discover what per-

centage of pregnant women who experience abruptio placentae or stillbirth is related to recent cocaine ingestion and compare this percentage to those of normal patients in labor who have positive urine screens for cocaine. We hoped to determine the prevalence of cocaine use during pregnancy and its significance in causing abruptio placentae in indigent patients.

### Materials and methods

The study consisted of three groups. All patients above 20 weeks' gestation who were admitted to labor and delivery with evidence of abruptio placentae or stillbirth were asked to participate. Patients in labor with no apparent problems were similarly recruited as a control group. Patients were unselected except for the above criteria and were recruited by nurses or physicians on labor and delivery after the study was described and informed consent was obtained.

All patients were routinely asked to produce a urine specimen to check for proteinuria and glucosuria. This specimen then was used for the study. Urine was analyzed by the Toxicology Department of the Indiana University School of Medicine with an immunoassay drug screen for cocaine's major metabolite, benzoylecgonine, called Emit, manufactured by the Syva Co. This test required less than 1 mL of urine and has a false-positive rate of less than 10%.

Benzoylecgonine can be detected by immunoassays for 24 to 48 hours after cocaine use. Each positive urine was confirmed by GC/MS (gas chromatography/mass spectrometry), considered the "gold standard." GC/MS provides the most specific and

### Table 1

		Abruptio	
	Control <u>N=30</u>	Placentae N=8	IUFD <u>N=5</u>
Age	21.7	25.1	26.8
Gravida	2.0	3.75	2.0
Para	0.9	1.6	0.8
Gestational age	39.5 wks.	32.9	33.6
Prenatal care	21/30 good PNC-70% 7/30 poor PNC-23.3% 2/30 no PNC-6.6%	1/8 good PNC-12.5% 2/8 poor PNC-25% 5/8 no PNC-62.5%	4/5 good PNC-80% 1/5 poor PNC-20%
High-risk pregnancy features	50%	100%	60%
Prior preterm delivery	6.6%	50%	0
Prior IUFD	0	25%	0
Cigarette use	43%	37.5%	60%
Cocaine use	6.6%	25%	0
Fetal weight	3,346 gm	1,962 gm	2,260 gm
Delivery	vag. del/low forcep delivery 70%, c/s-23% mid forcep delivery-6.6% -14% for fetal distress	75% vag. del. incld. 3 IUFDs 25% C/S	100% vag. del.
Apgar scores	7.431/8.65	3/8 still birth-37.5% 1/8 ambulance del. not assigned 4/8 2.5¹/5.25⁵/7¹0	0
Cord pH	0	3/8 A-7.9, V-7.07	0
Fetus/infant	100% normal, home with mother	1/8 normhome with mother, 12.5% 1/8 withdrawal, Rx'd with paragoric, 12.5% 3/8 stillborn, 37.5% 3/8 complications-prolonged hospital 37.5% - 2 with permanent sequelae	4/5 norm. anat 1/5 Down synd.
Positive cocaine screen	1/30 - 3.3%	1/8 - 12.5%	0

unchallengeable confirmation.8

Each urine specimen was labeled by group heading only, with no other identifying markers. The patient's hospital number was recorded separately by group so maternal charts and delivery outcomes could be compared later.

Abruptio placentae was diagnosed on the basis of evidence of abruption (>10%) at the time of delivery or clinical symptoms with laboratory evidence of abruptio (i.e., abnormal clotting studies). Those patients with intrauterine fetal death from evidence of abruptio placentae were placed in the abruptio group.

Each patient's chart recorded age, gravidity, parity, gestational age, labor and delivery course, birth weight and Apgar scores. The prenatal course of each patient was reviewed and any highrisk features were noted. The number of clinic visits was recorded, and prenatal care was labeled as good, poor or none. Poor prenatal care was defined as fewer than or equal to three clinic visits. The infants' charts also were reviewed for abnormalities in physical exam and perinatal problems.

### Results (Table 1)

Thirty patients were enrolled in the control group; they averaged 21.7 years of age, gravida 2, with one (0.9) living child delivering at 35.5 weeks. Seventy percent had good prenatal care, and 7% had no prenatal care. Fifty percent had high-risk features associated with their pregnancy, including glucose intolerance, prior preterm deliveries, history of preterm labor, oligohydraminos, hypertension and drug use.

Eight patients were enrolled in the abruptio placentae group;

### Table 2

### Identifying the substance abuser<sup>10</sup>

### Physical appearance & demeanor:

- Patient looks physically exhausted
- Pupils are extremely dilated or constricted
- Appearance of pregnancy fails to coincide with stated gestational age
- Track marks, abscesses or edema are visible in upper or lower extremities
- Nasal mucosae are inflamed or indurated
- Patient is not well-oriented

### Obstetric history:

In prior pregnancies, history of:

- Abruptio placentae
- Fetal death
- Low birth weight infant
- Meconium staining
- Premature labor
- Premature rupture of membranes
- Sexually transmitted disease
- Spontaneous abortion

In current pregnancy, history or evidence of:

- Early contractions
- Inactive or hyperactive fetus
- Poor weight gain
- · Sexually transmitted disease
- Spotting or vaginal bleeding

### Medical history:

- AIDS
- Cellulitis
- Cirrhosis
- Endocarditis
- Hepatitis
- Pancreatitis
- Pneumonia

they averaged 25.1 years, gravida 3.75, with 1.6 living children delivering at 32.9 weeks. Only one (12.5%) had good prenatal care, five of eight (62.5%) had no prenatal care, while the rest had poor prenatal care. Half of these patients had a history of preterm deliveries, 25% had prior intrauterine fetal death, and the rest had other high-risk features (*Table* 2).

Three of eight (37.5%) with

evidence of abruptio placentae had an intrauterine fetal death. Of the remaining five live-born infants in the abruptio placentae group, three had complications requiring prolonged hospital stays, and two had irreversible sequelae from their births. Only one infant in the control group had a prolonged hospital stay, consisting of a seven-day course of antibiotics associated with chorioamnionitis.

One of eight urine specimens (12.5%) in the abruptio placentae group was positive for cocaine, and one infant in that group was treated with paregoric for cocaine withdrawal. A positive cocaine use history was obtained from two of eight patients in the abruptio group (25%) and two of 30 patients (6.6%) in the control group. No infants in the control group showed evidence of cocaine withdrawal; however, one of 30 maternal urine samples (3.3%) was positive for cocaine.

In the intrauterine fetal death group, the average of the five enrolled was 26.8 years old, gravida 2, parity 0.8 delivering at 33.6 weeks gestation. None of these patients gave a history of cocaine use, and no urine samples were positive. Four of the five patients in this group had good prenatal care. Three of the five had high-risk features, but none had a history of intrauterine fetal death or abruptio placentae.

During the study, 1,611 infants were delivered, including 10 (0.6%) complicated by abruptio placentae and eight (0.5%) with intrautering fetal death.

#### Discussion

In a 1987 study at Harlem Hospital in New York, 10% of all newborns had a positive urine screen for cocaine. <sup>10</sup> In a recent Boston study, Frank et al reported 8% of urine samples obtained prenatally and immediately postpartum were positive for cocaine metabolites. <sup>12</sup> McCalla et al reported a 12% incidence of positive urine cocaine screens in New York inner city patients. <sup>13</sup> We were surprised then to have 3.3% positive cocaine screens in our control group.

However, this low percentage agrees with a recent unpublished

study conducted by Drs. Samples and Alan Golichowski in an obstetric clinic that serves the same patient population evaluated in this study. They screened urine samples of 192 consecutive obstetrical patients, and only two were positive for cocaine (1%). Because of the slower rate of cocaine metabolism in the fetus and neonate. it is possible that the percentage of positive neonatal urine screens in our control group may have been slightly higher than 3.3% but not near 10%. This finding contrasts to the figures obtained from the abruptio placentae group of 12.5% (one of eight) positive maternal urine screens and 25% (two of eight), versus 6.6% (two of 30) in the control group giving a history of cocaine use during pregnancy.

In the abruptio placentae group, 87.5% had no or poor prenatal care (versus 30% in the control group), and 75% had prior preterm delivery or prior intrauterine fetal death. Two (6.6%) in the control group had prior preterm deliveries, and none had a history of intrauterine fetal death. The patients in the abruptio placentae group were inherently high-risk obstetrical patients. We can only speculate about the role of cocaine in their poor pregnancy outcomes.

We have observed a trend toward poor perinatal outcome in the form of abruptio placentae in those pregnant women using cocaine. Perhaps cocaine use contributes to their poor prenatal care because they feared being discovered as a substance abuser. Chasnoff suggests that obstetrical histories, such as those given by the patients in the abruptio placentae group, should be a red flag to the obstetrician that the patient

may be a substance abuser.<sup>10</sup> (*Table 2*)

Physicians must be thorough to uncover signs of substance abuse from a patient's appearance, demeanor and medical and obstetric histories.<sup>10</sup>

### Conclusion

Cocaine use by pregnant women of low socioeconomic groups in Indianapolis is less than in other large urban centers. However, a poor obstetric outcome in the form of abruptio placentae occurs in those who use cocaine during pregnancy. Cocaine abusers often show signs of their abuse in their medical and obstetrical histories. In addition, an inconsistent pattern of prenatal care may indicate apathy or ambivalence about the pregnancy, as well as a fear of discovery.

Identifying a substance abuser is an important first step in decreasing the incidence of poor outcomes. Identification involves more than taking a drug history and may require persistence in reviewing and evaluating the patient's past history, current appearance, demeanor and actions. Physicians must suspect substance abuse when a patient gives the same obstetrical history as the patients in our abruptio placentae group. Further actions to consider include patient education, referral for chemical dependence treatment and involvement of social services

Prenatal treatment and followup also should be pursued actively. Tests also should screen for related problems, such as sexually transmitted diseases, hepatitis and HIV exposure.

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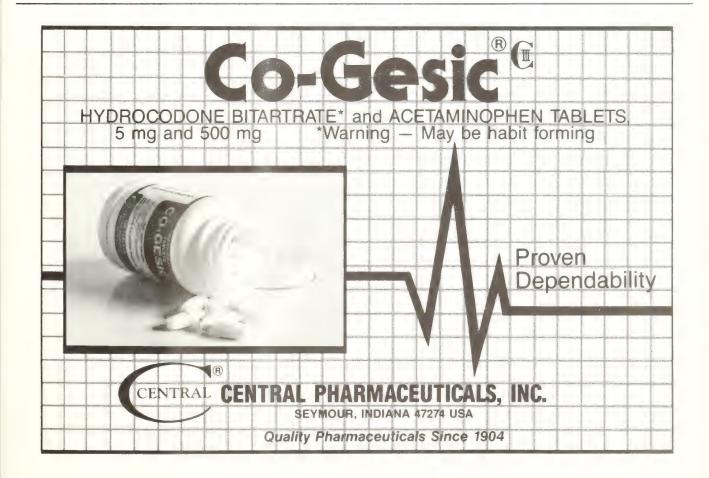
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## cme quiz

To obtain one hour of Category I CME credit, answer the following questions by circling the correct answer on the answer sheet below. Complete the application form and mail it to: Indiana University School of Medicine, CME Division, BR 156, 1226 W. Michigan St., Indianapolis, IN 46223.

### Pregnancy, abruptio placentae and cocaine

- 1. A factor influential in cocaine's diffusion across the placenta is:
  - a. high pH of fetal blood
  - b. low molecular weight
  - c. low lipid solubility
  - d. low water solubility
- Cocaine used during pregnancy seems to:
  - a. be excreted primarily in the stool
  - b. decrease uterine blood flow
  - c. reach maximum concentrations in the blood in 90 minutes
  - d. all of the above
  - e. none of the above
- 3. Pregnant cocaine abusers tend to:
  - have benzoylecgonine detected for approximately seven days in their excrement
  - b. have multiple other high-risk features about their pregnancies
  - rarely be apathetic toward their pregnancy
  - d. not have a history of poor weight

- 4. Factors present in the history or exam to cue the physician to drug use by a patient might include:
  - a. abnormal activity of the fetus
  - b. history of pneumonia
  - c. history of preterm labor
  - d. size of pregnancy not consistent with dates
  - e. all of the above
- 5. Approximately what percentage of women interviewed in the National Cocaine Hotline study used cocaine during pregnancy?
  - a. <1%
  - b. 10%
  - c. 20%
  - d. 50%
  - e. 75%
- The hypertensive effect of cocaine is greater when given directly to the fetus than after maternal ingestion.
  - a. true
  - b. false

- 7. East coast studies show newborn screens to be 10% positive for cocaine.
  - a. true
  - b. false
- 8. Patients abusing cocaine, in general, seek less prenatal care than controls.
  - a. true
  - b. false
- At the time of this study, Indianapolis ranked equal to other major metropolitan areas in having a marked problem with cocaine abuse during pregnancy.
  - a. true
  - b. false
- 10. In the United States, less than 5% of the population has tried cocaine.
  - a. true
  - b. false

### Answer sheet for CME quiz

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### Answers (circle one)

- 1. abcd
- 2. abcde
- 3. abcd
- 4. abcde
- 5. abcde
- 6. a b
- 7. a b
- 8. a b
- 9. a b

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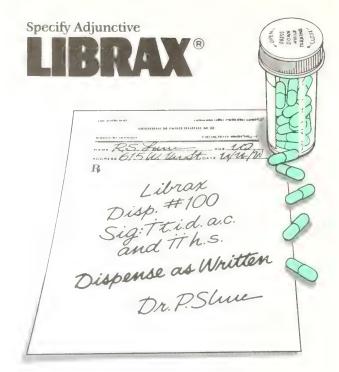
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# Cardiac myxoma: The Indiana Heart Institute experience

Tony K. Nasser, M.D. William K. Nasser, M.D. John D. Slack, M.D. R. Joe Noble, M.D. Bruce F. Waller, M.D. John H. Isch, M.D. Rodger P. Pinto, Ph.D. Indianapolis

Prompt diagnosis of a cardiac myxoma is sometimes difficult because the range of clinical signs and symptoms is consistent with many other more common cardiovascular and systemic diseases.<sup>1</sup>

This article reports on 14 patients with cardiac myxoma and discusses the important factors in the clinical diagnosis, treatment and postoperative follow-up. Emphasis is given to clinical suspicion, noninvasive and invasive imaging and factors that permit successful surgical repair.

### Clinical features

Since 1974, 14 cardiac myxomas have been surgically resected at the Indiana Heart Institute at St. Vincent Hospital and Health Care Center in Indianapolis. Many of the clinical features in our 14 patients are similar to those reported in other series.<sup>1-7</sup> Ten of 14 cases occurred in women. The age at the time of diagnosis ranged from 28 to 75 years, with a mean age of

### **Abstract**

Surgical resection of a cardiac myxoma was performed in 14 patients at the Indiana Heart Institute at St. Vincent Hospital and Health Care Center in Indianapolis from 1974 to 1989. Thirteen were located in the left atrium and one in the right atrium. The 10 women and four men ranged in ages from 28 to 75 years. Surgical complications included one perioperative death, one late death and one late recurrence requiring reoperation. Physicians must be highly suspicious to correctly diagnose this unusual but surgically correctable entity. Two-dimensional echocardiography is the diagnostic technique of choice for both early diagnosis of a cardiac myxoma and late follow-up after resection.

52. One of the myxomas originated from the right atrium and 13 from the left atrium. One of the 14 cases was a recurrence in a patient with previously resected atrial myxoma.

The presenting complaint was dyspnea in 10 of 14 cases. Five of 14 complained of chest pain. Three of 14 complained of edema. Three of 14 had symptoms of emboli. At the time of presentation, six of 14 had signs of atrial dysrhythmias, which resolved following removal of the atrial myxoma. Six of 14 cardiac myxomas were diagnosed at outlying hospitals and referred to the Indiana Heart Institute for surgical resection.

Physical findings in our 14 cases of cardiac myxoma generally were not helpful. The characteris-

tic tumor "plop" that is suggestive of a left atrial myxoma was auscultated in only four of 14 patients. The electrocardiograms and chest roentgenograms also were not helpful in diagnosing cardiac myxoma.

Diagnostic testing

Two-dimensional echocardiography was consistent with the diagnosis of a cardiac myxoma in 12 of 13 patients (*Figure 1*). One case was missed by a preoperative two-dimensional echocardiogram and subsequently was an incidental finding during prosthetic mitral valve replacement surgery. An echocardiogram was not performed on a second patient. All 14 patients underwent preoperative cardiac catheterization. One case of a cardiac myxoma was



Figure 1: Two-dimensional parasternal long-axis echocardiogram demonstrating a cardiac myxoma seen as an echodense mass (arrows) in the left atrium above the mitral valve leaflets. LV=left ventricle, AO=aorta, AML=anterior mitral valve leaflet, PML=posterior mitral valve leaflet.

highly vascularized as demonstrated by selective coronary angiography; however, the pathological diagnosis at surgery confirmed that the tumor was benign.

Follow-through levophase angio-cardiograms, performed by injecting radiopaque dye into the pulmonary artery, demonstrated an atrial filling defect consistent with the diagnosis of a cardiac myxoma in 13 of 14 patients (Figure 2). The angiocardiogram in one patient could not confirm the left atrial mass demonstrated by echocardiography because of dilution of contrast dye during the levophase angiocardiogram. The right atrial myxoma was visualized at catheterization by direct right atrial angiocardiography with injection into the inferior vena cava.

### Surgical results

Our 13 patients were treated between 1974 and 1989, during

which time 12,795 open heart surgeries were performed. We report a surgical incidence of cardiac myxoma to be 0.11% or approximately one of every 1,000 open heart surgeries. We report one operative death out of 14 patients due to cardiogenic shock and sepsis.

Additional concomitant surgery was necessary in two cases: One patient had replacement of a mitral valve prosthesis, and a second had a saphenous vein bypass graft placed to a coronary artery. There was one recurrence out of 14 cases that occurred within two years after surgery and was located on the left atrial wall directly opposite the original site of resection.

### Discussion

Primary cardiac tumors are uncommon, occurring in approximately 0.0017% to 0.28% of the general population in autopsy series.<sup>2,8,9</sup> Myxoma is the most common cardiac tumor, accounting for 50% of all primary cardiac tumors.<sup>3,8-11</sup> Seventy-five percent of atrial myxomas arise in the left atrium and 25% in the right.<sup>3,10,11</sup> Cardiac myxomas occur in women three times more often than in men.<sup>1</sup> Classic cardiac myxomas are benign, nonrecurring left atrial tumors and attach in or about the fossa ovalis.<sup>1</sup>

Cardiac myxomas tend to occur clinically in one of three ways: 1) by embolization; 2) by obstruction to the flow of blood; or 3) by constitutional manifestations. <sup>1,3,12</sup> Arrhythmias have been reported infrequently in patients with left atrial myxoma, with the most common being atrial fibrillation or flutter. <sup>3</sup> We report five cases of left atrial myxomas asso-

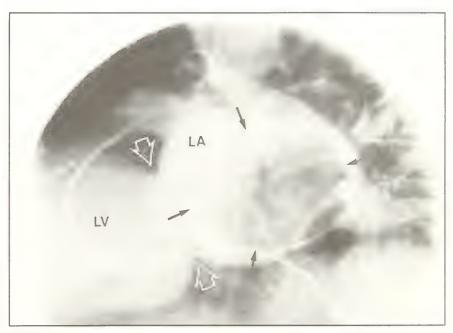


Figure 2: Levophase angiocardiogram demonstrating a left atrial filling defect (closed arrows) above the mitral valve (open arrows). LV=left ventricle, LA=left atrium.

ciated with atrial fibrillation that resolved following surgical resection of the tumor.

Two-dimensional echocardiography is currently the technique of choice for the diagnosis and follow-up of cardiac myxomas. 4.9.11 Six of our 14 (43%) patients had their initial echocardiograms performed in their community hospitals and were referred for surgical resection with the diagnosis of cardiac tumor. We believe this demonstrates the importance of echocardiography in the diagnosis of patients who have vague and atypical cardiac symptoms.

Surgical resection of the entire atrial myxoma, along with a wide adjacent margin, is necessary to excise possible micrometastases that may exist in the surrounding myocardium.10 In all of our cases, an atriotomy was typically performed and repaired with a Dacron patch or oversewing of the atrial septum (Figure 3). Most cardiac myxomas are attached to a pedicle that arises from the atrial septum near the region of the fossa ovalis.<sup>10</sup> The overall operative mortality from recent series has been 0% to 2.7%.5,6

Intracardiac recurrence of a cardiac myxoma has been reported at a rate of 5% to 14%.5,6,13 Recurrences have been documented at the site of the original tumor, at other intracardiac sites, at multiple intracardiac sites and at extracardiac sites. 10,14 The cause of the recurrent cardiac myxoma is not well-understood, but the most likely factors include inadequate resection, intracardiac implantation and multicentric growth. 5,6,15,16 Recurrences are reported to average between one to three years.<sup>6,10,14,16</sup> Therefore, all patients who have previously undergone surgical resection of a



Figure 3: Original surgical specimen of the resected left atrial myxoma.

cardiac tumor should have an annual routine follow-up echocardiogram in an attempt to detect a possible recurrence.

A cardiac myxoma can appear as a multitude of conditions. Two-dimensional echocardiography is the technique of choice in both the early diagnosis of cardiac myxomas and in late follow-up after resection. Complete surgical resection of the cardiac myxoma is the definitive form of treatment, but recurrence is possible.

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### Look-alike and sound-alike drug names

Category: Brand name: Generic name:

Dosage forms:

WELLBUTRIN

Antidepressant Wellbutrin, BW Bupropion HCl

**Tablets** 

ALCAINE

Category:

Brand name: Generic name: Dosage forms:

Ophthalmic local anesthetic

Alcaine, Alcon Proparacaine HCl Ophthalmic solution WELLCOVORIN

Folic acid derivative Wellcovorin, BW Leucovorin calcium Tablets, injection

ALCARE

Antiseptic, germicide

Alcare, Vestal Combination drug

Foam

## drug names

Benjamin Teplitsky, R. Ph. Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions.

Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such lookalike and sound-alike drug names can reduce potential errors.

## Breast-feeding failure

Patricia G. Becker, M.D. Julie A. Conard, R.N., C.P.N.P. Indianapolis

he Surgeon General's Workshop on Breastfeeding and Lactation in 1984 set a national priority that 75% of infant feeding be initiated as breast-feeding by 1990. The Task Force on Professional Training in Lactation, composed of national representatives of family practice, pediatrics, obstetrics, nursing, public health, La Leche League and other professional groups, such as the March of Dimes, created a set of objectives for breast-feeding education.<sup>2</sup> These objectives included clinical training for professionals and continuing education for updating current breast-feeding practices.

As a result of increased promotion of breast-feeding by the medical community, many parents believe breast-feeding is the only acceptable and the best way to feed an infant. When a baby fails to gain weight appropriately with breast-feeding, maternal guilt and depression can develop. As professionals, we should educate ourselves in proper breast-feeding techniques so we can better identify the causes of the infant's poor weight gain rather than simply stating "the baby just isn't getting enough from the breast."

This article presents three cases demonstrating various problems leading to poor weight gain in infants. The article also describes management skills that may help to avert a true breastfeeding failure.

### Case one

A 21-day-old white boy, with a birth weight of 7 pounds, 8 ounces, was born to a 22-year-old mother, G1, P1, Ab1. Prenatal, puerperal and neonatal periods were all uneventful. The mother initiated breast-feeding with moderate success.

The baby, released at 3 days of age weighing 7 pounds, 3 ounces, was not seen again until the 21st day, when the mother called and said the child was resisting feeding. The baby's weight in the clinic was 6 pounds, 14 ounces. He was in reasonable spirits but appeared malnourished. When offered Pedialyte solution, the baby fed voraciously.

The infant was admitted with the following vital signs: temperature, 99.5 rectal; heart rate, 155 per minute; and blood pressure, 70 mm Hg systolic. Laboratory results disclosed the following values: serium sodium, 145 mEq/L; potassium, 4.8 mEq/L; chloride, 120 mEq/L; bicarbonate, 21 mEq/L; and blood urea nitro-

gen, 28 mg/dL.

Historically, the baby breastfed every three to four hours, usually 10 to 15 minutes on each side. The father and grandmother appeared very concerned, but the mother seemed detached and even somewhat depressed. When the father and the grandmother left, the mother tearfully revealed that she hated breast-feeding and that it was done under pressure from the grandmother who had nursed her children. The father also pressured the mother because of financial reasons. The mother

was frustrated with and exhausted from breast-feeding.

During the baby's five-day hospitalization, he gained 10 ounces, while consuming approximately 28 to 30 ounces daily of standard formula. We explained to the family that it was in the baby's best interest to discontinue breast-feeding. No one objected because of the baby's excellent weight gain in the hospital. We did not mention our private conversation with the mother. The family was enrolled in the county women, infants and children (WIC) milk supplementation program.

### Case two

The patient was an 8-day-old white girl. Her birth weight was 7 pounds, 1 ounce. Prenatal, puerperal and initial neonatal courses were uncomplicated and the discharge weight was 6 pounds, 11 ounces. The mother was breast-feeding 10 minutes per side every two to three hours. At eight days of age, the infant developed lethargy and poor feeding. Urine output also was diminished according to the mother. The mother claimed to have milk flow but did not ever feel engorged or full before each feeding. She also denied any spontaneous leaks of milk. The infant was admitted on the eighth day for possible sepsis and dehydration.

Her admitting weight was 5 pounds, 4 ounces, and her admitting vital signs were temperature, 97.8 rectal; heart rate, 130 per minute; respiratory rate, 32 per minute; and blood pressure, 70

mm Hg systolic. The physical exam revealed a lethargic, wasted infant with a weak cry. The skin showed poor turgor with tenting. Anterior fontanelle was sunken. The mucous membranes were dry. The baby had a good suck and grasp. The rest of the exam was unremarkable.

Laboratory tests disclosed the following values: serum sodium, 171 mEq/L; potassium, 6.1 mEq/L; chloride, 130 mEq/L; bicarbonate, 18 mEq/L; blood urea nitrogen, 67 mg/dL; serum creatinine, 1.3 mg/dL; and hemoglobin, 19.9 gm/dL.

Intravenous hydration was begun. Blood and spinal fluid cultures were sent, and ampicillin and gentamycin IV were initiated.

The sodium was corrected slowly over 48 hours. Cultures remained negative. Oral feedings were started with an ad lib amount on demand. The patient gained weight daily during a week of hospitalization. The mother decided to discontinue breast-feeding.

### Case three

A 13-day-old white boy was the product of a spontaneous vaginal delivery by a G1, P1, married, 26-year-old mother. The mother selected breast-feeding and was given routine instructions during her three-day hospital stay. The child's birth weight was 7 pounds, 4 ounces, with a discharge weight of 7 pounds. He was not seen again until day 13 with a weight of 5 pounds, 10 ounces. This was a routine weight check, and the mother was not worried.

The mother had been nursing every three to four hours, about 30 minutes per side. She thought her breasts were empty after 10 minutes of feeding. She also said she had seen milk at her nipple

and on the baby's mouth. She had difficulty getting the infant to latch because of her large breasts and, consequently, began to use nipple shields. The mother said the infant then sucked vigorously and appeared satisfied.

Admitting vital signs were normal. Laboratory studies showed the following values: blood urea nitrogen, 17 mg/dL; serum creatinine, 1.9 mg/dL; and total protein, 6.9 gm/dL.

After the mother was instructed how to extend the nipple to ease the latching process, the infant was breast-fed without shields seven minutes on a side. After each feed, he then took two to four ounces of formula. The mother was given intensive instruction on breast-feeding. After three days, he was discharged weighing 6 pounds, 10 ounces. Three days later in the outpatient clinic, he weighed 7 pounds, 9 ounces.

### Discussion

Breast-feeding provides excellent nutritional value for the infant. Other benefits may be immunological, economical and even psychological. Because of the increased frequency of breast-feeding in the United States, problems with breast-feeding are being encountered more often. Among these problems are lactation failure, a relatively uncommon but potentially serious event, as illustrated by these cases.

At least 20% of first-time mothers may have complete failure in breast-feeding, and about 50% of nursing mothers may show significant difficulties.<sup>3</sup>

Breast-feeding failure occurs because of many reasons. Physiologic factors include the following: inadequate milk supply with poor infant suckling, lack of primary letdown reflex, development of sore nipples, and the use of artificial aids, such as nipple shields.

Emotional factors that influence the success of breast-feeding include: anxieties about the mother's ability to produce enough milk, embarrassment at breast exposure and the father's feelings. Perceptions of the value of breast-feeding, of breast-feeding as old-fashioned, of the convenience of bottles and of interference with sexuality or with ruining the mother's figure may predispose to failure. Lack of motivation by the mother or her work intentions also may influence the success.

A good history from the mother is important. Maternal motivation and level of experience may be critical. Lack of motivation is perhaps the most significant cause of failure. It is important to ask the mother how she feels about breast-feeding and if she wishes to continue breastfeeding. Many women begin breast-feeding at the urging of another person, perhaps the physician or a family member, and then become disenchanted with the process. Others begin breastfeeding unaware of the commitment to the infant that this type of feeding requires. Lack of support by family members also can contribute to a breast-feeding failure.

The mother may describe inadequate milk supply. She should be asked by the physician if she ever feels full or ever spontaneously leaks milk. The primary letdown reflex often is described as a "tingling" in the breast just before the milk flow and is a neurohumoral reflex occurring as a result of the act of sucking. The letdown reflex is important for extracting the hind

milk from the nipple. The hind milk contains nearly two-thirds of the milk supply and has a higher fat content. Therefore, lack of letdown may result in inadequate milk. The use of Syntocinon nasal spray may facilitate the letdown reflex.<sup>4</sup>

Inadequate milk supply also can be secondary to organic causes. Insufficient glandular development of the breast, resulting in lactation failure, has been identified. Tandem breast-feeding of an older sibling followed by the infant also will result in insufficient quantities of milk.

Failure to thrive must be considered when there is loss of more than 10% of birth weight, failure to regain birth weight by two weeks of age, decline from a previous rate of growth or evidence of malnutrition on examination. These infants must be followed closely and managed aggressively. Supplementation with formula must be used with caution so as not to diminish the infant's desire to suckle at the breast. The breast-feed should precede any attempt to give formula.

Some of these infants may fit the recognized pattern of "starved but contented." The mother, regardless of intelligence, is unaware that the infant is starving until he becomes cachectic and near death. This entity has been linked not only to inadequate volume of breast milk but to a defect in the infant's appetite control?

Sore or cracked nipples and tender galactoceles (obstruction of

the milk duct with inspissated milk) may be painful. The mother then may be hesitant to breast-feed because of her anxiety over this pain, and secondary engorgement results. Too many health professionals are tempted to interrupt the breast-feeding schedule and supplement temporarily with formula, hoping to stop the pain cycle. On the contrary, this would result in further pain due to engorgement.

Usual management of nipple soreness includes nursing for shorter periods more frequently, air drying of the nipples, proper latching-on technique to diminish nipple traction and providing a short-acting pain reliever 30 minutes before the feed. Galactoceles also are managed by continued feeding, mild analgesics and warm compresses to the involved area.

Many clinicians also are tempted to treat sore nipples with nipple shields. These shields may provide some temporary relief of pain by diminishing direct contact with the breast. However, the mother must be advised against continuous use because the lack of direct contact may diminish suckling stimulus to the breast and, thus, diminish milk production.

Education by the clinician during the prenatal and perinatal periods plays an important role in the breast-feeding process. The actual method of breast-feeding should be reviewed and observed by the hospital medical staff during the newborn period. The mother should be advised to

watch the baby for specifics, such as suckling attempt, urine and stool output and frequency of feedings. She also needs to be instructed about early lactation with colostrum production and how this develops into a more substantial milk flow. Engorgement and let-down should be reviewed before the potential development of these problems. Diet and fluid intake can be discussed briefly.

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THE BOLD LOOK OF KOHLER



# The diagnosis and treatment of genital human papillomavirus lesions

James R. Brillhart, M.D. Indianapolis

The incidence of human papillomavirus (HPV) infestation is increasing at an alarming rate. According to the Centers for Disease Control, HPV infestation has increased 138% during the past 10 years. In my private practice, I've seen a much a higher incidence than that, both symptomatic and asymptomatic.

HPV is primarily a sexually transmitted disease (STD). A patient must understand this, and the diagnosis, treatment and prevention must be directed at the entire sexual consortium.

HPV infestation may produce pain, especially vulvar pain, cervical intraepithelial neoplasia (CIN), and vulvar intraepithelial neoplasia (VIN) and warty lesions of the genitalia. Pain and CIN can cause infertility. CIN frequently causes a delay in infertility workup. The treatment of the more advanced CINs, or stage O epidermoid carcinomas of the cervix, could produce impaired fertility or permanent sterility.

Participants at an international antiviral symposium suggested that 40 million people in the United States have HPV.<sup>1</sup> Meisels found HPV in 59% of specimens taken from 160 patients

### **Abstract**

A gynecologist in solo practice reviewed three years of experience in the diagnosis and treatment of human papillomavirus (HPV). Infected women were asked to have their sexual partners diagnosed and treated. One hundred nineteen women and 57 men were examined. This article describes common HPV lesion types and examination methods for both sexes. Magnification and use of dilute acetic acid are emphasized. The most common treatments and the prosand cons of various therapeutic methods are discussed. The results of treatments with podophyllin, trichloroacetic acid, electrodesiccation, cryosurgery, CO<sub>2</sub> laser, topical 5-fluorouracil and combinations of these also are presented. The sexual partner co-treatment is explained, and the author summarizes his choice of treatment.

with abnormal cytologies, CINs or carcinomas of the cervix: HPV 16 - 43%; 18 - 6%; 11 - 3%; 6 - 11%; and others - 23%.<sup>2</sup>

Another group's hybridization studies have repeatedly demonstrated HPV DNA in 90% of all neoplastic lesions of the cervix.<sup>3</sup> According to Dorsey, HPV 16, 18, 31, 33 and 35 are oncogenic, while HPV 6 and 11 are more commonly benign.<sup>4</sup>

In Heidelberg, Germany, Gissman demonstrated HPV DNA in 29% of pregnant women tested.<sup>5</sup>

During my first two decades of private practice, I observed that condyloma acuminata appeared as venereal warts, which were painted with podophyllin and seemed to disappear. If the warts did not disappear, trichloroacetic acid (TCA) or electrodesiccation was used. In the late 1970s, I attended advanced colposcopic courses sponsored by Harvard and Northwestern universities. Little or nothing about HPV was mentioned, but the classic changes in the epithelium after applying 3% acetic acid were discussed at that time.

Gradually, medical literature began to recognize some of the problems arising from HPV in the genital tract, primarily from the advances in DNA research, coupled with clinical findings. With this knowledge, the medical community became obligated to treat this entity more responsibly. Physicians, especially gynecologists, urologists and family practi-

tioners, treating the sexually active population would see a wave of HPV problems that could compare with any of the more publicized STDs.

Diagnosis of HPV lesions in men and women cannot be accomplished without magnification. Large condylomas visible to the naked eye usually are accompanied by surrounding microinfection. Most, if not all, HPV infections are multicentric. Three percent to 5% acetic acid swabs or soaks in women and 5% acetic acid gauze wraps for five to 10 minutes in men will highlight the acetowhite epithelial color change. (Brand name white vinegars are usually 5% acetic acid). A physician using magnification can demarcate the microinfected areas caused by altered keratin. One author cautions that acetowhite changes on the cervix occasionally are from trivial causes.6

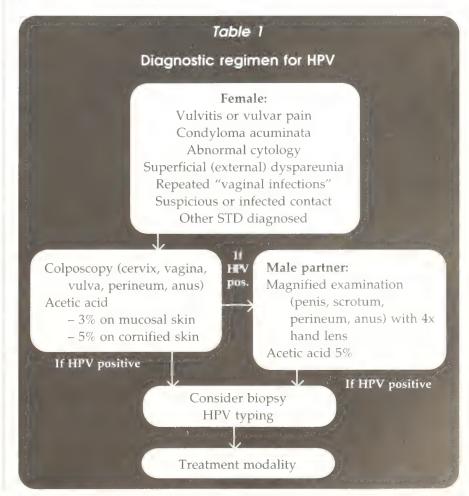
The use of the colposcope in women and a 4x rectangular hand lens in men, along with the acetic acid application, shows the areas to be biopsied and/or treated. Examine every female with vulvodynia, superficial dyspareunia, abnormal cytology, including hyperkeratosis or anucleated cells, condylomas, other STD or suspicious contact. Examine all male sexual contacts of women positive for HPV or with clinically obvious lesions (Table 1).

In my experience, CIN is associated in about 90% of the cases with other clinical or subclinical genital HPV lesions, and exophytic external condylomas are associated with about 90% of vaginal and cervical infestations.

The use of biopsy should be stressed. A flat condyloma of the cervix may be just that, with warty tissue, or it may be the roof over CIN. With clinically less expensive methods of HPV typing, the potential of the lesions also can be better assessed. Most gynecologists are more colposcopically experienced in looking at the cervix than at the vaginal wall, the mucosal surfaces of the inner labia, the urethral, Skene and Bartholin orifices, the more heavily keratinized and trichotic skin of the outer labia and perineum and the anus and anal canal.

With acetic acid and the colposcope, mucosal vulvar lesions are rather protean in morphology. Patches of papillary

spicules, thin semitranslucent projections with a single capillary centrally, are commonly seen. Regressing, these become areas of rounded cobblestones, often with the central vessel present. After flattening, they assume a mosaic, pavement appearance. Areas of white epithelium are common and also can be associated with or during treatment of the above lesions. On mucosal surfaces, especially in the fourchette, the development of a white, moderately dense hyperkeratotic area is not uncommon. It usually is due to persistent infection after treatment and the stimulus of coital



friction.

Lesions of the more heavily keratinized skin of the labia minora and majora and anal areas are macro- and microcondylomas and white epithelial patches. Large condylomas and white patches are visible to the naked eye, but groups of micropapillomas, often surrounded by acetowhite epithelium, are visible only with magnification. VIN may exist overtly or covertly, just like CIN. Don't forget to perform a biopsy. Also, the use of toluid-

ine blue may be helpful. Remember, all exams should be done with dilute acetic acid application.

The findings in a man, using magnification and a five- to 10-minute 5% acetic acid gauze wrap, are almost identical to those discussed in the preceding paragraph. There may be obvious condyloma, some singly or in groups. Extension into the lower pubic region is more common in men than in women. Microcondylomas and white epithelium are common on the shaft of the

penis. White epithelium often is seen where the shaft of the penis rests on the scrotum and where the scrotum touches the infected fourchette during coitus. In my primarily heterosexual patient group, anal infection was four times more common in women than in men.

In men and women with marked clinical disease or stubborn persistence, cystoscopy should be done.

Certain factors govern the successful treatment of HPV le-

Table 2

### Female patients

				Mean # of	
Treatment type	Remission	Recur or still Rx	Total women	treatment visits	Men checked
1. Podophyllin 20%	5 (1)	()	5	1.4	1
2. Podophyllin/TCA	16 (7)	5 (2)	21	4	9
3. Laser after failure					
of #1 or #2	6	()	6	4.7	0
4. Electrodesiccation					
after failure of #1 or #2	3 (1)	1 (1)	4	5.8	2
5. TCA only	12 (4)	2 (2)	14	1.6	6
6. Cryo then laser	2 (1)	()	2	3	1
7. Efudex & TCA	9 (4)	4 (3)	13	2.7	7
8. TCA/laser	1	4	5	3.2	0
9. Efudex	2 (1)	1	3	2.3	1
10. Laser					
a. as primary treatment	12 (4)	-	12	1	4
b. as primary treatment					
w/recurrence at treatment					
w/other modalities	4(1)	4 (1)	8	2.8	2
c. VIN III	1 (1)	()	1	3	1
VIN II	1 (1)	0	1	2	1
CIN III/CIS	2	1	3	2	0
CIN II	3	0	3	2	0
TAH/CIS, laser vulva	3 (1)	1	4	and the same of th	1
Total	82	23	105		36

Women lost to follow-up not included in above = 14 (119 positive).

() = number indicates incidence of men checked.

Treatment visits do not include routine follow-up where no treatment is done.

sions and are as follows: 1) debulking infected tissue; 2) immune response of the individual; 3) aggressiveness of the lesion (viral genotype?); and 4) reinfection.

Because of the multicentric infection probability, the multiplicity of genotypes and protean lesion forms, the treatment must be somewhat individualized. It is good to know what disease the patient has and then to assess the type of patient with the disease. This knowledge can help determine patient compliance.

Podophyllin 20%, the old line of attack, should be set aside. It should not be given to patients as a prescription to use at will. The reactions to podophyllin are unpredictable. Reactions range from nothing to ulcerating. The biologic product is rarely standardized. It is poisonous systemically and dangerous to use in pregnancy. It is less effective than other agents, such as trichloroacetic acid (TCA).

TCA is an effective method. It may be used on more cornified lesions and may be applied with a small wooden applicator under magnification to small lesions of all types. It is useful in recurrence after other destructive methods, such as electrodesiccation, CO, laser and cryosurgery. Since it is an acid, it can be neutralized and, thus, controlled by dipping a wet cotton applicator or gauze into a medicine glass of sodium bicarbonate and covering the treatment area. TCA also can be used in non-CIN lesions of the cervix, but results are variable.

Electrodesiccation has been useful but requires a local anesthetic. Patients often are frightened by even the suggestion of a needle, especially in the genital area. It should be used only in

Table 3

### Male patients

Treatment type	Remission	Rec. or still Rx	Total men	Mean # of treatment visits
1. Podophyllin 20%	6	0	6	1.0*
2. Podophyllin 20%/TCA	2	()	2	2
3. #2 & 5-FU	1	0	1	3
4. TCA only	8	1	9	1.2*
5. TCA/5-FU	5	3	8	2.8*
6. TCA/5-FU/laser	1	0	1	3
7. TCA/electrodesiccation	4	1	5	4.2*
8. 5-FU only	12	0	12	1.1
Total	39	5	44	

Infected female partner - no HPV lesion found6
Referred - too massive to treat1
Lost to follow-up6
Total

<sup>\* =</sup> These groups had men whose infected partners were not under treatment. Treatment visits do not include routine follow-up where no treatment is done.

gross lesions. It is basically a heat destruction; therefore, the depth may be difficult to control and excessive deep tissue destruction may occur. Careful use can be advantageous.

Cryosurgery on individual lesions on the external genitalia and anus includes the problems of pain, depth control and insufficient area covered and is time consuming and followed by unacceptable persistence. However, in the treatment of cervical lesions and early CIN, it is successful when done to a 5-mm depth. To reduce pain and autonomic reactions in cervical cryosurgery, the preoperative use of a nonsteroidal anti-inflammatory drug in a loading dose, such as naproxen, sodium, 550 mg (Anaprox DS,

Syntex) is valuable.

The CO, laser application can be used on the vulva and anus with a high-power density covering the entire area and wiping the epidermis off. This method requires general or conduction anesthesia, a good colposcopic/laser setup and expertise. Low-power density and operative slowness can generate heat and too much tissue destruction. Since the treatment areas are denuded, the postoperative care (all outpatient) is more intense. Analgesics, tepid normal saline sitz baths and moderate activity restriction are needed. This wipe down technique usually is used only in VIN or severe or refractory cases of condylomas. Cervical ablation and vaginal "flashing" helps reduce recurrence.

In less severe cases, the use of the CO, laser to ablate only major infected areas and obvious lesions with follow-up treatment with TCA or 5-fluorouracil (5-FU) is less debilitating and is promising. This touch-up or follow-up use of the above agents after any tissue destructive failure is recommended.

The chemotherapy of HPV disease with 5-FU has been successful in the vulva, vagina and male genitalia. A vanishing cream base, applied topically, is available in a 5% concentration. The microcondyloma and abnormal epithelial areas are most responsive. Keratinized lesions are best reduced first by laser or TCA. Recurrence seems to be reduced with 5-FU use.

The patient should use the cream nightly on local skin reactions for 10 to 12 days. Patients should be instructed to carefully apply only a thin film as instructed and should not under- or overuse. If the cream is applied correctly, it does not affect healthy skin. The reaction is described, and proper analgesia and post-reaction care are detailed. The patient should be checked three weeks after the reaction and then every four months for one year.

In all of the above therapies, condom use is stressed. Condi-

tions caused be HPV cannot be treated easily. Accurate diagnosis, good patient education and diligence in treatment and follow-up are rewarding. There is no best method. *Table 2* outlines the methods I have used with varying successes. Many patients gradually gain immunity during treatment. Some patients gain it without treatment and are cured spontaneously.

Currently, we may only be treating the symptoms. However, we are treating CIN and VIN, making the monogamous sexual couple more comfortable, educating about potentially malignant STDs and limiting its spread.

Summary

The following are suggested treatments for men and women. Physicians should check and treat positive contacts and encourage condom use until partners are clear. Monogamous coital activity or abstinence and follow-up exams should be encouraged.

Men - Microcondyloma and acetowhite skin, a few and patchy - use TCA. Diffuse areas - use 5% 5-FU cream (see text). Touch-up with TCA or 5% 5-FU. Frank condylomas - debulk with TCA or CO, laser. Follow-up with TCA or 5% 5-FU. 5-FU increases remission.

Women - Infestations, local or

diffuse, with nonkeratinized lesions - use 5% 5-FU cream to reaction or TCA. Treat cervix concomitantly with cryogenic unit. Infestations with keratinized areas of or frank condylomas - debulk lesions with TCA or CO<sub>2</sub> laser. Cryocone or laser vaporize cervix. Follow-up with TCA or 5% 5-FU as needed. Old persistent lesions, VIN and CIN are best treated with CO<sub>2</sub> laser to cervix and affected areas (consider wipe down, see text).

Correspondence and reprints: James R. Brillhart, M.D., 4954 E. 56th St., Suite 7, Indianapolis, IN 46220.

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## Intersection syndrome

Richard S. Idler, M.D. James W. Strickland, M.D. James J. Creighton Jr., M.D. Indianapolis

Intersection syndrome represents one of many inflammatory conditions involving the soft tissues of the distal forearm and wrist. It is sometimes referred to as peritendinitis crepitans.

The intersection area of the forearm is located at the site where the musculotendinous junctures of the abductor pollicis longus and extensor pollicis brevis cross over the underlying tendons of the extensor carpi radialis longus and brevis (*Figure*). These structures are closely approximated to one another by the overlying extensor fascia of the forearm. At this site, the tendons are lined only with peritenon, and no tenosynovial area can be identified.

Intersection syndrome is seen most commonly in workers whose activities involve repetitive flexion and extension of the wrist. Intersection syndrome tends to occur with the onset of a new activity rather than a condition that develops from prolonged exposure to activities involving repetitive wrist motion.

As the condition develops, pain and swelling occur over the dorsal radial aspect of the distal forearm. Palpation about this area may detect increased warmth and a crackling crepitance with wrist flexion and extension. The pain of intersection syndrome is

greater with wrist motion than with thumb motion. The site of discomfort is located more proximal and dorsal on the forearm than would be found with inflammation of the abductor pollicis longus and extensor pollicis brevis tendons as they pass through the first extensor compartment (de Quervain's stenosing tenosynovitis).

A Finkelstein's test, performed by simultaneous thumb flexion and ulnar deviation of the wrist, may be positive for discomfort, but the site of discomfort should localize to the intersection area. Radiographs are normal in this condition. The differential diagnosis includes tenosynovitis of the extensor tendons involving the first, second or third dorsal compartments, blunt local trauma or entrapment of the dorsal radial sensory nerve as it emerges beneath the brachioradialis (Wartenberg's syndrome). The swelling and erythema sometimes associated with intersection syndrome also may raise the possibility of a cellulitis.

As intersection syndrome arises from repetitive use of the upper extremity, in nearly all cases it will respond to cessation of provocative activities. In severe cases, wrist immobilization in a neutral position with a splint is indicated. Oral nonsteroidal anti-inflammatory medications often are helpful. Once the pain and swelling begin to subside, gradual resumption of wrist motion may be initiated. Those cases that fail to respond after four to six weeks

of splinting and anti-inflammatory medication may benefit from a cortisone injection between the musculotendinous junctures of the abductor pollicis longus and extensor pollicis brevis and the underlying radial wrist extensor tendons.

In rare situations, surgery may be necessary. What is unique about intersection syndrome is there is no inflamed tenosynovial layer about either group of involved tendons. Intersection syndrome appears to represent a pure form of "tendinitis" with direct inflammation of this tissue. Confined beneath the extensor fascia, inflammation and swelling around these tendons increase their surface friction, contributing to a cycle of additional swelling and friction. Release of the overlying extensor fascia breaks the cycle by decreasing the shear forces between the two groups of tendons. Following surgery, early motion of the wrist and thumb is encouraged.

Some clinicians believe the actual site of pathology in intersection syndrome is the second dorsal compartment. In this case, there should be inflammation of the tenosynovial lining of the extensor carpi radialis longus and brevis tendon. Because there is disagreement about the actual site of pathology in intersection syndrome, both the second dorsal compartment and intersection area should be examined and, if necessary, released.

Intersection syndrome is a soft tissue inflammatory condition

involving the distal forearm. Its etiology is due to activities involving repetitive wrist flexion and extension. The condition frequently is confused with de Quervain's stenosing tenosynovitis. However, its signs and symptoms are slightly more proximally located on the forearm. In most cases, conservative management can cure the condition.

This is another in a series of monthly articles on hand conditions from the Indiana Center for Surgery and Rehabilitation of the Hand and Upper Extremity in Indianapolis.

Correspondence and reprints: Richard S. Idler, M.D., Hand Surgery Associates, P.O. Box 80434, Indianapolis, IN 46280-0434.

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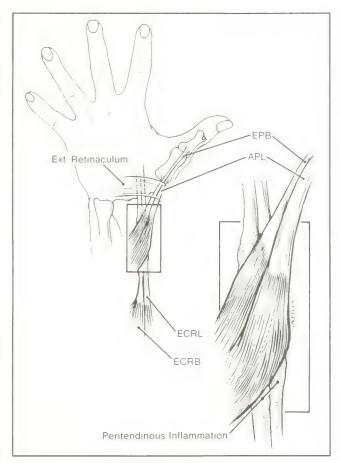


Figure: The intersection area of the forearm is highlighted. The extensor compartments are located more distally.

## National Practitioner Data Bank:

#### What every physician should know\_

Ronald L. Dyer, J.D. ISMA general counsel

Since passage of the Health Care Quality Improvement Act (HCQIA) in 1986, the National Practitioner Data Bank (NPDB) has received much discussion. This article contains pertinent information about data bank requirements, its operations and the most frequently asked questions by physicians.

Q. When will the required reporting under the NPDB begin?

**A.** The reporting requirements for the NPDB began Sept. 1, 1990.

**Q.** If an action taken against a physician is finalized before the effective opening date of the data bank, is it required to be reported?

A. No. No retroactive report-

ing is required.

Q. What information about medical malpractice litigation is required to be reported?

A. Each person or entity, including an insurance company, that makes a payment on behalf of any physician as a result of a written claim or a judgment must report that information to the data bank and to the Medical Licensing Board of Indiana.

**Q.** What if a physician makes a payment personally to a patient before the case is presented formally or filed?

A. If the physician makes any payment to a patient as a result of any written claim or judgment, the physician is responsible for filing a report with the data bank and the

state's medical licensing board.

**Q.** What actions taken by the Medical Licensing Board of Indiana will be reported to the data bank?

**A.** Any disciplinary action relating to the physician's professional competence or professional conduct will be required to be reported within 30 days from the date the action was taken.

**Q.** What actions by the hospital relating to a physician's clinical privileges will be reported?

A. Any adverse action taken against a physician's clinical privileges, based on the physician's professional competence or conduct that affects or could adversely affect the health or welfare of a patient, that results in denial, revocation, suspension, limitation or reduction of clinical privileges for a period longer than 30 days, must be reported.

Additionally, the voluntary surrender or voluntary restriction of clinical privileges, while under investigation relating to possible incompetence or improper professional conduct or in return for not conducting such an investigation,

must be reported.

**Q.** What actions of my professional medical societies must be reported?

A. Professional societies must report any adverse membership action taken against a physician.

Q. How will I know what information about me is contained in the data bank?

**A.** Every physician can request a copy of his or her data

bank file, which will be sent at no charge. Each physician should make that request periodically.

**Q.** Will I be notified at the time an adverse action is reported to the data bank?

A. Current procedures of the data bank dictate that when an adverse action against a physician is received by the data bank that information will be provided to the physician.

**Q.** Does the physician have any right to challenge the accuracy of the information contained in the

report?

A. The physician has 60 days to dispute the accuracy of information contained in the report. To dispute the information, the physician must describe in writing the reason for the disagreement and return it to the data bank, as well as inform the entity that made the original report the reason for the disagreement. The physician should attempt to discuss, if possible, the situation with the reporting entity to resolve the dispute.

**Q.** Who may request information from the data bank?

**A.** State medical licensing boards, health care entities that provide health care services and professional societies may request information.

**Q.** Can a plaintiff's attorney obtain information from the data bank?

**A.** The only time a plaintiff or plaintiff's attorney can obtain information from the data bank regarding a specific physician is

when there is evidence that the hospital failed to make mandatory inquiry from the data bank regarding the physician at the time medical staff privileges are initially granted and once every two years thereafter. Even then, the information about the physician can be used only with respect to an action or claim against the hospital and not against the physician.

**Q.** If a malpractice payment is made on behalf of an entire clinic or entire hospital, will the names of all member-practitioners be reported?

**A.** No. Medical malpractice payments made solely on behalf of a clinic or hospital, as contrasted with a specific physician, are not reportable.

Q. Will a physician be reported when he or she is named in an action based on the services of a health care practitioner under his or her supervision?

**A.** If a payment is made for the benefit of a physician for a claim that arose from the services of a subordinate, the physician will be reported; however, the reporting entity or the physician may provide an additional explanation of the circumstances surrounding the complaint.

**Q.** If a physician waives a bill for services to a patient, following informal mediation of a complaint, must the physician report it as a medical malpractice payment?

A. No. The waiver of a debt or bill would not be a reportable event; an exchange of money must

be involved.

**Q.** If a stipulation of settlement or court order requires that its terms remain confidential, must the malpractice insurer report the payment to the data bank?

A. Yes. A stipulation that the terms of a settlement or judgment remain confidential does not excuse an entity making a payment for the benefit of a physician from the requirement to report to the data bank.

Q. Are adverse actions on clinical privileges reported immediately, even if the physician appeals the decision?

A. No. Adverse actions on clinical privileges are not reportable until they are made final by the health care entity. If an internal, administrative appeal preceding final action by the entity is provided for in the health care entity's bylaws, then the action is not reportable until the conclusion of the appeal.

Q. If the physician "plea bargains" and is allowed to resign from the hospital staff during investigation, is this reportable?

**A.** Yes. Surrender of clinical privileges while the physician is under investigation by the health care entity relating to possible incompetence or unprofessional conduct must be reported.

Q. Does entrance into a drug, alcohol or psychiatric rehabilitation program for 30 days or more require reporting to the data bank if privileges are suspended?

**A.** Voluntary enrollment in a drug, alcohol or psychiatric rehabilitation program does not in itself constitute a reportable action. However, suspension of clinical privileges for more than 30 days as a result of a professional review action based on professional competence or conduct is reportable.

Q. If an initial application for clinical privileges is denied or the privileges granted are more limited than those requested, must this be reported to the data bank?

**A.** Yes. If the denial of an initial request for clinical privileges or the granting of privileges is more limited than those requested or if based on professional review action that relates to professional competence or conduct, it would be a reportable action.

**O.** Are there any adverse actions that are not required to be reported to the data bank?

**A.** Yes. Examples of actions or recommendations that are not based on the competence or professional conduct of a physician and are therefore not reportable include the following: suspension of a physician's clinical privileges or medical staff membership due to a failure to complete medical records on time if the failure does not compromise patient care; denial of clinical privileges or medical staff membership because of the lack of a need for the physician's services (i.e., closed medical staff or exclusive contract); suspension, denial or nonrenewal of clinical privileges or staff membership due to a failure to obtain or maintain a specified level of professional liability insurance; denial of clinical or staff membership due to a failure to comply with threshold eligibility requirements such as board certification or geographic requirements; reduction or nonrenewal of privileges due to a physician's failure to meet new threshold requirements (i.e., board certification) or lapse in a requirement (i.e., advanced cardiac life support certificate); and reduction

or nonrenewal of privileges due to the hospital's credentialing requirements, such as the physician's failure to admit a minimum number of patients to the hospital.

**Q.** If a professional society denies membership to a physician, is that action reportable to the data bank?

A. The denial of membership must be reported to the data bank if the denial is based on a professional review action conducted through a formal, peer review process and if the action was based on an assessment of the physician's professional competence or conduct that affected or could have affected the health and welfare of a patient.

**Q.** How will the data bank determine if a person requesting information is entitled to make a request?

A. Each entity making a request for information is required to have an identification number.

No information will be released until the entity making the request is determined to be eligible to receive information. The requesting entity also must certify in writing that it is eligible to receive information. Self-request by physicians will require a data bank identification number or a notarized statement certifying the identity of the physician making the request. Additionally, accessing the data bank for fraudulent purposes is punishable by fines and imprisonment.

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# Defense of medical malpractice claims takes perseverance and patience\_

Editor's note: This article is provided as a service of the Physicians Insurance Company of Indiana.

Defense of a medical malpractice suit in Indiana requires perseverance, patience and cooperation from the health care professional. Combining the complexities of practicing medicine with the many labyrinth-like qualities of the legal system and the emotions of all parties involved makes medical malpractice litigation very demanding.

In the United States today, a belief exists that professionals must do everything right, never err or fail in their plans. A presumption prevails that only if you are always perfect are you a true professional in your field. However, nothing could be farther from the truth.

A medical professional can be characterized as incompetent, careless or negligent if there is a real medical judgment error in only one of more than 30,000 physician-patient medical encounters.

Perseverance will guide a physician through the many stages of malpractice litigation. Although the litigation tries to prove negligence, it is crucial that the physician not waiver in his stance if there was no medical wrongdoing. The authors of the Indiana Medical Malpractice Act had the foresight to provide a medical review panel, a jury of your peers, to review cases for merit of negligence before the courts become overwhelmed with lawsuits.

Even though the medical review panel is beneficial to all

parties, it takes an average of more than 32 months from the time the suit is filed for the panel to issue its opinion. Then, the patient still may proceed with litigation within the court system. In Indiana, it may take up to six years from the time the alleged incident of malpractice occurred to the time the courtroom jury is seated. Six years is a long time to endure any activity, much less an unwarranted malpractice action.

As a health care provider, a physician can expedite the defense of a malpractice claim by following a few simple steps.

As a health care provider, a physician can expedite the defense of a malpractice claim by following a few simple steps. These steps include: 1) notifying your insurance carrier at the first indication or notice of a medical incident, claim or suit; 2) reporting to your insurance carrier any medical incident or treatment that concerns you; 3) reviewing the patient's medical records to refresh your memory and recollections concerning the medical situation and treatment; 4) not admitting guilt, fault or liability about your acts or the acts of another physician or health care practitioner related to the claim; and 5) not making an offer, proposal of waiver of

charges or any other action that could be construed as a form of settlement or an inducement to settlement. An insurance claims professional will tell you more specifically what you should and should not do.

Adhering to these steps will enable an insurance carrier to plan and conduct an effective defense, avoid a formal claim or suit whenever possible, reach a fair and quick settlement if appropriate and relieve the physician of the pressures resulting from a medical professional liability claims situation. When both sides of a malpractice case understand what happened with the patient's care, not just the allegations or the medical records implications, the physician has served the patient, the community and himself well.

Dave McKenney, vice president of claims for PICI, said "To persevere in the face of objectionable allegations of your competence is a true test of any professional. Your talents, knowledge and skill will be put to the test. Don't get discouraged. As a medical professional, your charge is to insist on a strong defense against wrongful accusations. You can assist in that defense by cooperating with your counsel and continuing to have confidence in your medical abilities. Hold your course when you believe you're right."

For a copy of "A Physician's Guide to Reporting Medical Professional Liability Claims," contact PICI's Claim Department, 8425 Woodfield Crossing Blvd., Suite 300, Indianapolis, IN 46240, (317) 469-4100 or 1-800-284-7424.

## ICHIA offers insurance \_to high-risk patients\_

T.J. Geary Indianapolis

A 43-year-old Hamilton County, Ind., woman with multiple sclerosis lost her job when her employer declared bankruptcy. Because the woman needed health insurance during her unemployment, she applied for coverage with several companies. Everyone turned her down. Then an insurance agent told her about the Indiana Comprehensive Health Insurance Association (ICHIA).

The women learned she qualified for insurance through ICHIA for two reasons. First, multiple sclerosis is an "uninsurable" condition. She didn't

need to submit letters of rejection from other insurance companies. Second, because her employer went bankrupt, she qualified for the plan that waives pre-existing conditions.

The woman's insurance policy became effective the date ICHIA received her application.

Before 1981, this woman might not have been eligible for any insurance coverage. It wasn't until July 1981 that the Indiana legislature mandated the establishment of a comprehensive health insurance program for state residents who were unable to obtain health insurance for reasons such as catastrophic illness and high insurance premium rates.

ICHIA is the state-mandated, not-for-profit insurance program available for high-risk people. It is administered by a local private insurance company and insures more than 3,000 Indiana residents. Known in the industry as the high-risk insurance pool, ICHIA is gaining visibility as an alternative to Medicaid.

As indicated in its name, ICHIA is composed of insurance companies underwriting health insurance in Indiana. By law, these companies must be members of the association and are responsible for funding the program.

ICHIA clients, as high-risk people, use the benefits of their policy more frequently than the the health care costs for its members.

ICHIA offers several benefit plans to its members. The plans are similar but offer a range of deductible and out-of-pocket expenses. The deductible cost is a predetermined dollar amount spent by a member each calendar year before insurance begins paying 80%. The out-of-pocket expense is a predetermined limit that the member is responsible for paying each calendar year before insurance pays 100%.

A medical professional is available during work hours to determine specific benefits coverage. Prior authorization for medical equipment, supplies, skilled nursing care, etc. can be obtained

by calling the ICHIA office and speaking with the medical staff. This prevents denial of supplies or services already rendered and confusion about the availability of coverage. Several physician

specialists are available as consultants for determining specific needs.

Anyone interested in ICHIA may apply for coverage. Applicants must meet the requirements and submit specific documentation at the time of application to qualify. Documentation consists of proof of residency, medical eligibility and premium payment.

Proof of medical eligibility may be one rejection letter from a private insurance carrier or a condition predetermined to be uninsurable. The patient must

Known in the industry as the high-risk insurance pool, ICHIA is gaining visibility as an alternative to Medicaid.

average insured person. This contributes to the \$5,000,000 operating deficit experienced in 1989 and the estimated deficit of \$6,000,000 in 1990.

To enhance the efficiency and appropriateness of claims payment, cost-containment measures such as precertification for inpatient stays and case management have been used. The rapid increase in health care costs prevents ICHIA from allowing 100% reimbursement of all claims expenses, but ICHIA provides, on the average, from 80% to 85% of

include information about the uninsurable condition on the application. For example, cystic fibrosis is listed as an uninsurable condition, so an applicant with cystic fibrosis would not need to provide a rejection letter. A statement from a physician may be requested in determining medical eligibility but is not always required.

ICHIA is similar to private insurance carriers because members are required to pay premiums. Insurance premiums are determined by age, sex, county of

residence and the plan chosen. ICHIA offers a monthly, quarterly, semi-annual or annual payment plan. The premium rates are actuarially determined and cannot exceed 150% of the highest premium charged in Indiana.

The state law governing ICHIA says people with health care benefits that meet the minimum requirements for health and accident insurance in Indiana do not qualify for ICHIA. This includes private insurance plans, Medicaid and/or Medicare. Some supplemental policies are allowed

as primary coverage to ICHIA.

ICHIA does not employ insurance agents and does not require their assistance in filing the application. Some people, however, prefer to have agent support in the application process.

For more information, call 1-800-552-7921 or write ICHIA, P.O. Box 501908, Indianapolis, IN 46250-1908.

The author is operations manager for ICHIA.

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The Guard is America at its best.

### letter to the editor

Ben Crouse, M.D. West Lafayette

The Indiana Veterans' Home is a large, state-operated long-term care facility with 800 beds and an actual census of 480 currently. It may be the largest long-term care facility in the state.

About four years ago, a policy was set by the Indiana State Board of Health, the organization that supervises the Indiana Veterans' Home, stating that veterans suffering from AIDS would not be excluded but could be admitted if otherwise qualified.

The facility immediately started to prepare for such admis-

sions. Staff, patients and the public received many hours of inservice education. There was some concern, even panic, at first, but it passed after continuing education and firmly adhering to the policy.

We advertised informally that our facility would accept AIDS patients who were qualified veterans in need of long-term care. We notified the Veterans Affairs hospitals, our usual source of referrals, and local and nonlocal infectious disease departments.

The hospital received two or three inquiries at first. One patient was accepted but died before he was stable enough to transfer to West Lafayette. The other patients were not qualified veterans.

During the past two years, the hospital has not received any inquiries. We have yet to admit an AIDS patient. Currently, we have

no applicants.

I suspect that there is much less demand for this service than we were led to believe. Indiana Veterans' Home still stands ready. Dr. Broomes' letter to the editor published in the November 1988 issue of INDIANA MEDICINE is interesting, isn't it?

Correspondence: Ben Crouse, M.D., Medical Director, Indiana Veterans' Home, 3851 N. River Road, West Lafayette, IN 47906.

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## auxiliary report

#### Rod Ashley ISMA Auxiliary president

While AMA physicians held their national convention in Chicago at the Hyatt Regency Hotel in June, auxilians from across the nation assembled a few blocks north, at the Drake Hotel, to hold their annual session of the AMA Auxiliary. Indiana was represented by delegates, alternate delegates and a national delegate and assisted by Rosanna Iler, ISMA's auxiliary coordinator.

The Indiana delegation witnessed the installation of Norma Skoglund of Roseburg, Ore., as the national auxiliary president for 1990-1991. Sherry Strebel of Oklahoma City, Okla., was installed as the national president-elect.

The delegation also participated in presenting a check, exceeding \$2,000,000, to the AMA Education and Research Foundation. The check represents the year-long cumulative efforts of thousands of county auxilians across the nation raising funds for this program.

Other highlights included addresses by former Secretary of Labor Ann McLaughlin, NBC Congressional Correspondent Andrea Mitchell and Surgeon General Antonia Novello.

The delegates passed several resolutions urging auxilians to encourage: 1) physicians to ban smoking in their offices; 2) legislators to draft and support legislation to deal more severely with those who operate boats while "under the influence;" 3) the support of educational and legisla-

tive programs to improve enforcement of existing noise control regulations; 4) the support of educational and legislative programs to improve enforcement of child safety seat laws; 5) the development of mathematic and science skills in schools to increase the pool of qualified applicants to health professions; 6) the adoption of comprehensive school health education programs; and 7) legislative approaches to the health problems created by border crossings and the potential impact those crossings may have on the health of Americans.

The delegates also approved minor bylaw changes and the 1990-1991 national budget. Ann Wrenn of Bloomington was elected to the national nominating committee.



ISMA auxilians attending the AMA-Auxiliary convention (seated left to right): Ann Wrenn, Rod Ashley, Lura Stone, Kay Enderle; (standing left to right) Ellaine Cox, Rosanna Iler of the ISMA, Pat Montgomery, Patrick Walker, Joann Welhage, Donna Dersch and Trudy Urgena. (Alternate delegate Alexis O'Yek was absent when the picture was taken).

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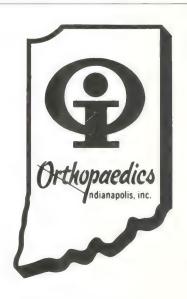
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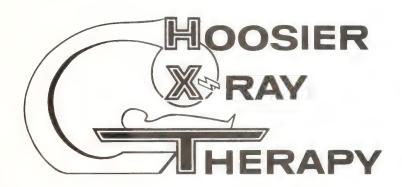
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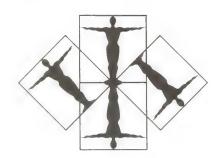
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#### news briefs

## Anatomy, examination of hand focus of conference

Richard S. Idler, M.D., will speak on anatomy and examination of the hand at 7 p.m. Sept. 17 at the Monday Night Hand Surgery Conference at the Indiana Center for Surgery and Rehabilitation of the Hand in Indianapolis.

The conferences, held on the third Monday of each month, are presented as continuing education for hand fellows, orthopaedic residents, hand therapists, occupational medicine specialists and other interested people.

The center is located at 8501 Harcourt Road. For information, call Beth Bush, (317) 875-9105.

## Project provides eye care for needy elderly Hoosiers

Medical eye care for elderly Indiana residents who cannot afford it is available through the National

Eye Care Project.

Those calling the toll-free Helpline, 1-800-222-3937, will be matched with a nearby Indiana ophthalmologist who has volunteered to provide eye care for the disadvantaged elderly at no out-of-pocket cost to the patient. If the elderly person is covered by Medicare or other health insurance, the physician has agreed, for this project only, to accept insurance assignment as payment in full. If the patient has no medical insurance, the care is free.

The patient must be 65 or older and a U.S. citizen or legal resident and must no longer have access to an ophthalmologist he or

she has seen in the past.

The project, sponsored by the Indiana Academy of Ophthalmology and the Foundation of the American Academy of Ophthalmology, is designed to detect and treat eye disease.

#### Dictionary lists drug names

The United States Pharmacopeial Convention has published the 1991 edition of the *USAN* and the *USP Dictionary of Drug Names*.

United States Adopted Names, or USAN, are the drug names adopted by the USAN Council, which is co-sponsored by the American Medical Association, the American Pharmaceutical Association and USP, with participation by the U.S. Food and Drug Administration.

The dictionary is \$85. To order, write USP Order Processing Department 825, 12601 Twinbrook Parkway, Rockville, MD 20852 or call 1-800-227-8772, ext. 825.

## CHAMPUS claims should be sent to Columbus

Residents in Indiana and 16 other states are being reminded to send CHAMPUS claims to Uniformed Services Benefit Plans, Inc., (USBPI) in Columbus, Ind.

The former claims processor for the CHAMPUS Northern Region, Blue Cross-Blue Shield of Rhode Island, still receives 400 letters and claims a day.

Indiana residents should send claims to USBPI, P.O. Box 3056, Columbus, IN 47202.

### Book on facial plastic surgery geared to teenagers

The American Academy of Facial Plastic and Reconstructive Surgery has released *The Teen Face Book*, containing information on skin care, cosmetics and facial plastic and reconstructive surgery.

The book, written in a question-and-answer format, offers real stories about teens with problems that only plastic surgery can solve. A 10-page guide for par-

ents is included.

The book, priced at \$12.95, is sold at bookstores or by calling the Facial Plastic Surgery Information Service, 1-800-332-FACE.

## NIH offers report on noise and hearing loss

The Office of Medical Applications of Research of the National Institutes of Health (NIH) is offering free copies of its consensus development statement on noise and hearing loss.

For a copy, write William H. Hall, Director of Communications, Office of Medical Applications of Research, National Institutes of Health, Building 1, Room 259,

Bethesda, MD 20892.

## Fellowships established in diagnostic cardiology

The Hewlett-Packard Co. has established two annual Hewlett-Packard Medical Fellowship Awards in diagnostic cardiology. Hewlett-Packard will award a \$30,000 scholarship and a computer to each of two physicians who propose research expected to yield milestone progress.

The fellowships are targeted at physicians in their third and fourth years of training in adult diagnostic-cardiology-research programs and encourage exploration in the areas of instrumentation and measurement but are not limited to those areas alone.

Douglas P. Zipes, M.D., of the Indiana University School of Medicine is one of the judges.

The deadline for applications is Nov. 30. For information, write Fellowship Programs Manager, HP Medical Products Group, 3000 Minuteman Road, Andover, MA 01810 or call (508) 687-1501, ext. 2895. □

### ■ obituaries

Ignacio B. Castro Jr., M.D.

Dr. Castro, 64, a Scottsburg surgeon, died July 8 at Norton Hospital in Louisville, Ky.

He was a graduate of the University of Santo Tomas in Manila,

Philippines.

Dr. Castro was a surgeon in Scottsburg for 27 years. He served two terms on the board of directors of the Indiana Chapter of the American College of Surgeons.

Frederick H. Evans II, M.D.

Dr. Evans, 74, an Indianapolis otolaryngologist, died June 23 at Methodist Hospital in Indianapolis.

He was a graduate of Meharry Medical College and was an Army captain in the Korean War.

Dr. Evans was chairman of

the otolaryngology section at Methodist Hospital from 1966 to 1970. He served as a member of the Indianapolis Department of Public Safety Board, the executive board of the Indiana State Board of Health and the board of the Indiana Higher Education Commission. He was a past president of the Indianapolis Speech and Hearing Center. He received the St. John Bosco Award from the Catholic Youth Organization.

Mortimer Mann, M.D.

Dr. Mann, 76, an Indianapolis ophthalmologist, died July 8 at Methodist Hospital in Indianapolis.

He was a graduate of New York Medical College.

Dr. Mann was chief of ophthalmology and neuro-ophthalmology at Wishard Memorial Hospital from 1960 to 1982. He was a clinical professor at Indiana University Hospital and founded the General Foundation of Ophthalmology at Wishard.

William J. Quick, M.D.

Dr. Quick, 88, a retired Muncie family practitioner, died June 13 at Ball Memorial Hospital in Muncie.

He was a graduate of Rush Medical College and served in the Army Air Force Medical Corps during World War II.

Dr. Quick was the son, nephew, grandson and greatgrandson of physicians. He was a member of the medical staff of Ball Memorial Hospital when it opened in 1929 and had a private practice in Muncie until he retired in 1974.

#### Memorials: Indiana Medical Foundation

The Indiana Medical Foundation, Inc., was formed by the Indiana State Medical Association "for religious, charitable, scientific, literary or educational purposes." It provides financial assistance to support the educational mission of INDIANA MEDICINE. Contributions made to the foundation are deductible by donors in accordance with the Internal Revenue Code. Gifts are deductible for federal estate and gift tax purposes.

The foundation is pleased to acknowledge the receipt of gifts in remembrance of these people:

J. Melvin Masters, M.D. Nancy A. Roeske, M.D. Richard Sharp

John W. Beeler, M.D. Mildred Ramsey Earl Mericle, M.D. John Bush Dallas McKelvey

## people

Dr. Richard J. Biggerstaff, an Indianapolis facial plastic surgeon, was named a fellow of the American Academy of Facial Plastic and Reconstructive Surgery.

Dr. Thomas A. Malone was named medical director of the neonatal intensive care unit at Methodist Hospital in Indianapo-

**Dr. Terry W. Talley**, an Evansville ophthalmologist, was elected chairman of the board of Evansville Goodwill Industries.

**Dr. Gerald T. Keener**, an Indianapolis ophthalmologist, was elected president-elect of the Indiana Society to Prevent Blindness.

**Dr. John L. Swarner Jr.**, a Valparaiso internist, has been certified in critical care by the American Board of Internal Medicine

Dr. Derek J. Sharvelle, a Lafayette ophthalmologist and sponsor of the Hoosier Health Check health screening program for senior citizens, was awarded the Ray Sears Memorial Award in conjunction with the Dick Lugar Fitness Festival, held annually in Indianapolis.

**Dr. Dolores M. Burant**, an Elkhart family practitioner, has been named director of addictions services at Oaklawn Center in

Elkhart.

Dr. Gregg A. Dickerson of Muncie has been certified in therapeutic radiology by the American Board of Radiology.

**Dr. Patricia A. Keener**, chief of pediatrics at Wishard Memorial Hospital in Indianapolis, has received the Park Tudor School Directors' Award for her work as chairwoman of the school's education committee.

**Dr. Max E. Sneary** of Avilla was named the Indiana Family Physician of the Year by the Indi-

#### Physician Recognition Award recipients

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Baker, Mason R., Bedford
Basavaraja, Hirematada, Muncie
Bhagwandin, Harry O., Indianapolis
Chaudhry, Shaukat A., Mishawaka
Cooke, John V., Richmond
Erenoglu, Ender, Highland
Fletcher, Maria V., Beech Grove
Gibbs, Philip S., Indianapolis
Jardenil, Romulo S., West Lafayette
Julius, Satish C., Evansville
Kamen, Jack M., Indianapolis
Karnafel, Eugene T., Logansport
Kight, Jerry L., Indianapolis
King, Mark A., Fort Wayne
Kohr, Roland M., Terre Haute

Long, Lloyd O., Chandler
Manley, Clovis E., Evansville
Nicely, Polly G., Indianapolis
Patel, Shodhan L., Merrillville
Reeck, Claude C. Jr., Indianapolis
Saalwaechter, John J., Lebanon
Salberg, Larry M., Merrillville
Seidle, Michael E., Muncie
Shoemaker, Robert E., Indianapolis
Stine, Mark K., Indianapolis
Taylor, Millard R., Howe
Torrella, Roxann M., Indianapolis
Trachtenberg, Lee H., Munster
Valenzuela, Roberto D., Merrillville
Wilhelmus, Gilbert M., Evansville

ana Academy of Family Physicians. **Dr. William J. Webb** of Huntington was awarded the 1990 Distinguished Public Service Award.

Dr. Lloyd K. Everson, an Indianapolis oncologist, was elected to the board of the Leukemia Society of America, Indiana Chapter.

Dr. Wylie G. McGlothlin, a New Castle family practitioner, was re-elected to the Planned Parenthood of East Central Indiana Board of Directors.

Dr. Randall C. Blake, a urological surgeon, has been certified in quality assurance and utilization by the St. John's Health Care Corp. in Anderson and the American Board of Quality Assurance and Utilization Review Physicians.

Dr. Kenneth H. Brown has retired as medical director of Lincoln Hills Health Center in New Albany and will reside in Summerlan Key, Fla.

**Dr. Glenn E. Ross**, former chief of radiology for Daviess County Hospital in Washington, was honored for more than 30 years of service.

**Dr. Clayton C. Barclay** of Elkhart was certified by the American College of Emergency Physicians.

Dr. John D. Slack of Carmel was elected president of the Marion County Division of the American Heart Association. Dr. Ronald G. Blankenbaker of Indianapolis was elected vice president.

**Dr. Benjamin J. Seligman**, a Bedford radiologist, was named

## people

president of the medical staff at Orange County Hospital.

Dr. Carl F. Conwell, a family practitioner, was named medical director of Countryside Nursing Center in Terre Haute.

New ISMA members Daniel R. Anderson, M.D., Salem, internal medicine.

Lawrence E. De Gan, M.D., Indianapolis, family practice. Cynthia B. Fisher, M.D.,

Elkhart, otolaryngology.

Stanley J. Gerrick, M.D., Anderson, occupational medicine. Christine M. Hamilton, D.O.,

Shipshewana, general practice.

Michael F. Kaveney, M.D.,
Indianapolis, orthopaedic surgery.

Philip C. Kirlin, M.D., Indianapolis, cardiovascular diseases.

**Stephen H. Paul**, M.D., Valparaiso, gastroenterology.

Richard H. Rhodes, M.D., Indianapolis, pulmonary diseases.

Mark A. Wyant, M.D., Indianapolis, family practice.

Residents

Janice T. De Santo, M.D., Indianapolis, neonatal-perinatal medicine

Thomas C. Dugan, M.D., Indianapolis, therapeutic radiology.

Blaine W. Farley, M.D., Carmel, family practice.

Kimberly R. Gatzimos, M.D., Carmel, anatomic/clinical pathology.

**Carey B. Gear**, M.D., South Bend, family practice.

Gail L. Goettler, M.D., Greenwood, pediatrics.

J.D. Headdy, M.D., Beech Grove, family practice.

**Robert Hojnicki**, M.D., Terre Haute, family practice.

David L. Kiley Jr., M.D., Greenfield, obstetrics and gynecology.

Paul A. Kozak, M.D., Indianapolis, emergency medicine.

W. Stephen Ku, M.D., Indianapolis, ophthalmology.

Paul J. La Prad, M.D., Indianapolis, pulmonary diseases.

K. Edwin Leap II, M.D., In-

dianapolis, emergency medicine.

Marvin R. McBride Jr., M.D., Muncie, family practice.

John E. Merryman III, M.D., Indianapolis, general surgery.

Beth A. Norman, M.D., Indianapolis, obstetrics and gynecology.

Timothy J. Nussbaum, M.D., Indianapolis, family practice.

Gary D. Rusk, M.D., Anderson, neurology.

Michael S. Scheeringa, M.D.,

Indianapolis, psychiatry.

Jon M. Sieber, M.D., Indianapolis, orthopaedic surgery.

**Thomas W. Sliwa**, M.D., Muncie, internal medicine.

**Donald P. Snyder**, M.D., Greenfield, obstetrics and gynecology.

Janet C. Teltscher, M.D., Indianapolis, dermatology.

Jose Dominador L. Valena, M.D., Muncie, family practice.

**Arthur F. Wang**, M.D., South Bend, family practice.

Harley W. Yoder, M.D., Indianapolis, family practice. □

#### Mark Your Calendars!

The 1990 ISMA convention will be held Nov. 2-4 at the Radisson Hotel in Indianapolis. Convention highlights will include "Flashback to the Fifties," the third annual theme party, the annual IMPAC luncheon, featuring John Dancy, NBC News Senate Correspondent, and the President's Night dinner with Jimmy Coe and his orchestra. Tina Dillard, ISMA's reimbursement coordinator, will conduct a Medicare seminar during the general education session.

In addition, three ISMA districts will hold afterglows to honor their candidates. For more information, contact Denise Le Doux at the ISMA, (317) 925-7545 or 1-800-969-7545.

#### Correction

**Dr. Lois L. Moss** is chief of pediatrics at Dearborn County Hospital in Lawrenceburg. Her name was incorrect in the July issue of Indiana Medicine.

### classifieds

GASTROENTEROLOGIST WANTED – FLORIDA. Terrific medium-sized coastal town. Two personable solo GI's seeking same to share heavy case load and coverage. Mail CV to: Richard Libby, 5510 Montgomery St., Chevy Chase, MD 20015.

**EMERGENCY MEDICINE** - A place to call home. BC/BE (or equivalent experience) emergency physician to join five-member fee-forservice group with 14,000 volume in full-service medical center. Excellent package including liability insurance and relocation allowance. Potential for university or EMS involvement. Good pace and cross-section of cases. Employment stability, opportunity for growth. First-class schools, environment and recreation in county seat within 55 minutes of downtown Chicago. Contact: Martha Mechei, M.D., Director of Emergency Medicine, St. Anthony Medical Center, Main and Franciscan Road, Crown Point, IN 46307, (219) 757-6310.

MEDICAL DIRECTOR - Large longterm care facility seeks full-time medical director. Board certification in family practice or internal medicine required. Administrative and supervisory skills preferred, and experience in government employment would be a plus. Position combines clinical work, direct and consultative, with administration at the largest long-term care facility in Indiana. University association, teaching medical and nursing students, is a possibility. Excellent benefit package. Send curriculum vitae to: Personnel Director, Indiana Veterans' Home. 3851 N. River Road, West Lafayette, IN 47906.

PHYSICIANS NEEDED – The Indiana Department of Correction is expanding its health care services program. This has resulted in many new positions throughout the state for physicians. A negotiated salary based on a 2% differential for each year of experience will be considered. Contract services can be negotiated as well. The Department of Correction provides excellent fringe benefits and both job security and opportunity for advancement. If interested please contact Sheree Bryan, recruiter, (317) 232-1062, Monday to Friday, 8:30 a.m. to 4:30 p.m., Indiana Department of Correction, 100 Senate Ave., Room 801, State Office Building, Indianapolis, IN 46204.

MEDICAL DIRECTOR – Immediate opportunity available for experienced physician interested in a clinical/administrative position. Our community health center is committed to providing quality care to the residents of our neighborhood, including the medically indigent. Contact: David A. Robinson, Executive Director, People's Health Center, 2340 E. 10th St., Indianapolis, IN 46201, (317) 633-7360. EOE.

PRIVATE PRACTICE would like to sell: ATL Ultramark IV Cardiac Ultrasound System, 3 years old; includes 2D Echo, M-Mode Scan, CW and Pulsed Doppler; has capabilities for carotid and peripheral Doppler; system comes with (1) 2.25 MHz Probe, (1) 3 MHz Probe, (2) 2.25 MHz CW Doppler Transducer. Quinton Treadmill Monitoring Unit. For more information, please call (317) 664-1201.

FAMILY PRACTITIONER needed for several openings in California, Texas, Florida and several other exciting locations. As an Air Force officer, you'll practice quality medicine on quality people, where the patient's needs come first. (Applicants must be on active duty before their 58th birthday.) Reach new heights. Call stat! USAF HEALTH PROFESSIONS. (317) 848-5830 COLLECT. Or send CV to: Col. William E. Patterson, HQ USAFRS/RSH, Randolph AFB, TX 78150.

PRIVATE PRACTICE OPPORTUNITIES exist in southern Indiana, affiliated with a 590-bed hospital. Specialties include internal medicine and family practice. Competitive compensation plan and attractive partnership arrangement available. Send CV to: Don Hoit, 11222 Tesson Ferry Road, Suite 203, St. Louis, MO 63123 or call 1-800-336-3963.

FOR SALE – Indianapolis, Ind. Medical building in integrated area. Various possibilities for use including multiple unit housing, day care, etc. Make offer. (317) 638-7937, (317) 636-4909, (317) 773-6500.

FOR SALE – Office equipment. Many items from recently closed office. Two examining tables, side table, baby scales, electric cautery, centrifuge, autoclave, monocular microscope, secretary desk, IBM typewriter, other miscellaneous items. Phone (812) 537-3504.

INVASIVE CARDIOLOGIST – Four-physician, single specialty cardiology group has an immediate opening for a BE/BC invasive cardiologist. Fully equipped cardiovascular labs are expanding and an excellent cardiovascular surgery program is established. The practice serves a large and expanding regional referral area in mid-Michigan. Generous compensation and early partnership are available. Send CV to: The Heart Group, P.C., Attn: N. Polzin, 4701 Towne Centre Road, Suite 201, Saginaw, MI 48604.

NON-INVASIVE CARDIOLOGIST – Four-physician, single-specialty cardiology group has an immediate opening for a BE/BC non-invasive cardiologist. Echo, Doppler, Holter and treadmill are established in-clinic. Full invasive and surgical programs are established. The practice serves a large and expanding regional referral

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area in mid-Michigan. Generous compensation and early partnership are available. Send CV to: The Heart Group, P.C., Attn: N. Polzin, 4701 Towne Centre Road, Suite 201, Saginaw, MI 48604.

**PROGRAM DIRECTOR** of the Family Practice Residency Program, St. Vincent Hospital and Health Care Center, Indianapolis, Ind. St. Vincent Hospital consists of: a 629bed acute care center, a 100-bed acute care community hospital in Carmel, Ind., a 200-bed specialty hospital called New Hope and a 112-bed stress center. The hospital is a major teaching affiliate with the Indiana University School of Medicine. The director will manage the overall medical and educational activities of the residency program that consists of 18 positions for the three-year program. This year, all first-year positions were filled. St. Vincent has a total of four fully-accredited residency programs. We are looking for an individual who has had experience in the area of family practice medicine including residency training. Experience in a teaching position is strongly preferred. The person must be qualified to obtain and hold an appointment to the medical faculty of Indiana University's School of Medicine. The person also must be boardcertified in family practice. Please send CV and correspondence to: Stuart C. Fiordalis, Fiordalis Associates, Inc., 600 Crown Oak Centre Drive, Longwood, FL 32750, or call (407) 830-4444.

STUDENT HEALTH PHYSICIAN for outpatient medical care of adolescents and adults. Primary care physician with board certification preferred. Licensed or eligible for Indiana. No weekend or night hours. Excellent benefit package. Send curriculum vitae to Robert Hongen, M.D., Medical Director, Indiana University Health Center, 600 N. Jordan Ave., Bloomington, IN 47405. Apply by Sept. 30, 1990.

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**REFURBISHED EQUIPMENT** for sale: fully checked out Ohio anesthesia machines, ECG, surgical lights, H.P. monitors, defibrillators, new scrub sinks, Picker mobile x-ray - 200 MA-100 KV solid state, Picker Echoview System 80C, B&L microscope, Ames Cryostat II, Lipshaw Cryotome Cryostat. Contact Bernard Medical Resources, 1555 Dixie Highway, Covington, KY 41011. (606) 581-5205.

OB-GYN/OTOLARYNGOLOGY/ORTHOPAEDICS/CARDIOLOGY/FAMILY PRACTICE/PEDIATRICS/INTERNAL MEDICINE/GENERAL SURGERY – Several attractive opportunities in INDIANA, WISCONSIN and MICHIGAN (many on lakes) for BC/BE physicians. Contact Bob Strzelczyk to discuss your practice requirements and these positions. STRELCHECK & ASSOCIATES, Inc., 12724 N. Maplecrest Lane, Mequon, WI 53092, 1-800-243-4353.

GASTROENTEROLOGIST - 235-bed JCAHO-accredited acute care hospital's medical staff offers career opportunity for board-certified (or eligible) gastroenterologist. Central Indiana location in community of nearly 40,000 and service area of more than 85,000 with excellent educational, cultural and recreational opportunities affords easy access to major metro areas. Qualified applicants should submit resumes in confidence to: John W. Green, Administrator, Marion General Hospital, Wabash at Euclid Ave., Marion, IN 46952

PEDIATRICIAN – 235-bed JCAHOaccredited acute care hospital's medical staff offers career opportunity for board-certified (or eligible) pediatrician. Central Indiana location in community of nearly 40,000 and service of more than 85,000 with excellent educational, cultural and recreational opportunities affords easy access to major metro areas. Qualified applicants should submit resumes in confidence to: John W. Green, Administrator, Marion General Hospital, Wabash at Euclid Ave., Marion, IN 46952, or R. Lee Walton, M.D., Chief of Pediatrics, Marion General Hospital, Wabash at Euclid Ave., Marion, IN 46952.

FOR SALE – Three exam room equipment; green. Includes exam table, side table, wastebaskets. Sold together or separate. Please call (317) 646-8268, Anderson, Ind.

NORTHEAST INDIANA – Family physician needed to join thriving family practice group. Located near beautiful University of Notre Dame campus. Board-certified or -eligible preferred. Salary negotiable plus bonus and excellent fringe benefits. Send CV to Family Care, Inc., 150 W. Angela Blvd., South Bend, IN 46617.

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FOR RENT - Naples, Fla. (week minimum). Condominium near Ritz Carlton with one bedroom plus sofa sleeper, bayside view, one block to ocean, rooftop swimming pool, other amenities. Call for mailing. Business, (317) 231-7253; home, (317) 842-6655.

MULTIPLE AND VARIED physician practice opportunities currently exist in the state of Indiana. Call Patti Quiring at (317) 633-6444 at work or (317) 823-4746 at home. Patti is a physician recruiter for Technical Resource Group, which is an executive search firm head-

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POSITION AVAILABLE with thriving three-clinic urgency care corporation. Practice heavily emphasizing industrial, sports medicine and wellness programs. Regular work week, no call. Assistant medical director available. Salary and benefits in six figures. Contact Dr. Dean Elzey, (219) 489-2772.

EMERGENCY MEDICINE – Terre Haute, Ind. Local group seeking full-time career-oriented emergency physician for position in low-and moderate-volume departments. Flexible scheduling, very competitive compensation package. Send CV or contact William R. Grannen, Priority Health Care, P.C., 7179 Lamplite Ct., Cincinnati, OH 45244, (513) 231-0922.

EMERGENCY PHYSICIANS WANTED – For Fayette Memorial Hospital in Connersville, Ind. Will consider all physicians with emergency medicine experience. 15,000 visits/year. Fee-for-service group does its own billing. Hourly compensation based on training, experience and qualifications. Excellent fringe benefit package includes, life, health, disability and malpractice insurance plus CME allowance, ACEP and ISMA dues, pension plan and potential bonus. Contact: Michael D. Bishop, M.D., FACEP, Emergency Care Physicians, 640 S. Walker St., Suite A, Bloomington, IN 47403, (812) 333-2731.

FAMILY PRACTICE – Hospital-sponsored clinic opportunity. Dynamic, growth-oriented hospital in beautiful north central Wisconsin is seeking two family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed

to an income and benefit package that is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact: Dan McCormick, President, Allen McCormick, France Place, Suite 920, 3601 Minnesota Drive, Bloomington, MN 55435, (612) 835-5123.

**CENTRAL INDIANA** – Physician-owned emergency group accepting applications for full-time, career-oriented emergency physicians. Flexible work schedules and excellent benefit package. Parttime and directorship positions also available. Send CV or contact Sherry Bussel, Midwest Medical Management, Inc., 528 Turtle Creek, North Dr., Suite F-4, Indianapolis, IN 46227, (317) 783-7474. □

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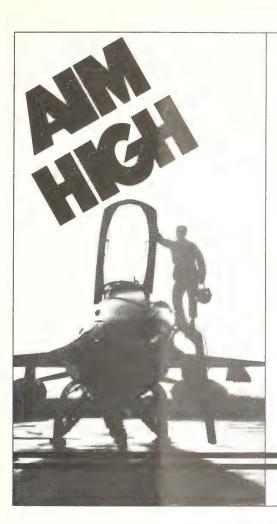
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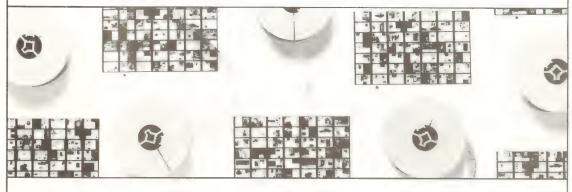
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# Advertising index

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The Ear Institute of Indiana	
International Tours	
J.B. Cohen Realty	
Lilly, Eli & Co.	
Lincoln National Life	
Medical Protective	
The Monroe Clinic	
Palisades Pharmaceuticals	
Physicians Billing Service of Indiana	
Physicians' Directory	
Physicians Insurance Co. of Indiana	
Roche Laboratories	
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Spectrum Emergency Care	
Summer Trace Retirement Community	
University Microfilms	
U.S. Air Force	
U.S. Army Reserve	631
U.S. Army National Guard	
Van Ausdall + Farrar	Cover

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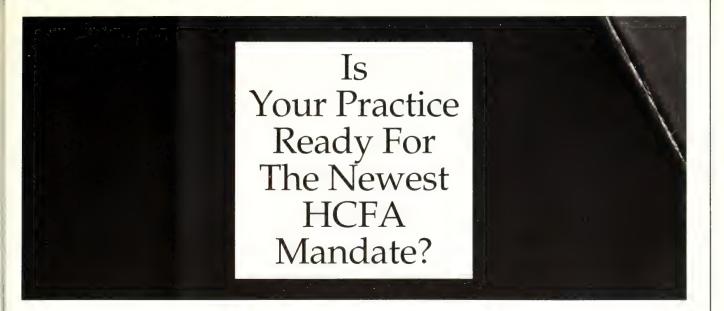
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# INDIANA MEDICINE

The Journal of the Indiana State Medical Association

October 1990

Vol. 83, No. 10



Specialty Section Meetings

MODERNAL WAR

IMPAC Luncheon (John Dancy, NBC News Correspondent)

### HAMMOND

Eichhorn, Eichhorn & Link

### MERRILLVILLE

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### LAPORTI

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The Journal of the Indiana State Medical Association

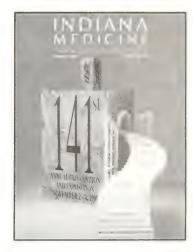
October 1990

Vol. 83, No. 10

# scientific contributions

Balloon valvuloplasty	8			
Peripheral cardiopulmonary support during high-risk angioplasty	6			
Transient ischemic attack: The presenting manifestation of transient asystole	2			
RADIOLOGY CLINIC Abnormal catheter position after central venous line placement	4			
HAND CLINIC Triscaphe arthritis	5			
Maternal mortality in Indiana: A report of maternal deaths in 1988	C			
features				
1990 Annual Convention & Exposition	2			
- ISMA annual reports				
HCFA administrator answers questions	5			
Sentinel director explains review process	)			
Undocumented phone calls: A liability issue	3			

Physician assistance coordinator joins ISMA staff.......770
Candace Backer will work with the program's medical director.



Cover story on page 732. Cover art by Celeste Design & Associates, Indianapolis.

# departments

stethoscope69
from the museum70
what's new70
cme calendar70
drug names72
snakeroot extract765
cme answers769
auxiliary report77
news briefs792
people
classifieds796

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# ■ stethoscope

# ISMA develops plan to protect Medical Malpractice Act

The Indiana State Medical Association has developed a plan to protect Indiana's Medical Malpractice Act. The plan includes meetings with editorial boards of several daily newspapers, expanding the Legislative Key Contact Program and distributing fact sheets on professional liability to physicians.

At the meetings with the editorial boards, George H. Rawls, M.D., ISMA president; Michael Mellinger, M.D., president-elect; and Richard King, executive director; will be joined by a representative of the county medical society in each city they visit. The purpose of the visits to Indianapolis, Fort Wayne, South Bend, Gary, Evansville and Louisville is to provide information on the malpractice act and other topics affecting physicians.

The request for more participation in the Legislative Key Contact Program has resulted in a 35% increase in the number of physicians who have volunteered to serve as Key Contacts. Those physicians will be responsible for contacting other physicians and their legislators when important legislation concerning medicine is being considered by the Indiana General Assembly.

The fact sheets on professional liability will provide physicians with information they can use when discussing the issue with legislators, patients and others.

# ISMA counting physicians who have moved to Indiana

Have you moved your medical practice to Indiana from another state because of Indiana's favorable malpractice situation? The Indiana State Medical Association is interested in finding out how many physicians have moved their practices to Indiana for that reason. Physicians who wish to provide this information should contact the ISMA Government Relations Department, 3935 N. Meridian St., Indianapolis, IN 46208, (317) 925-7545 or 1-800-969-7545.

# ISMA staff available to talk about upcoming legislation

The Indiana State Medical Association Government Relations Department is scheduling appointments to speak to county medical societies or hospital medical staffs about the upcoming Indiana General Assembly. Throughout the rest of the year, ISMA staff will be available to discuss issues that are expected to be introduced during the 1991 legislative session. To schedule an appointment, contact your ISMA field representative or the ISMA Government Relations Department, (317) 925-7545 or 1-800-969-7545.

# Annual legislative reception features 'Hoosier Hysteria'

Plan now for an evening of "Hoosier Hysteria '91" at the annual ISMA/IMPAC Legislative Reception, scheduled for Wednesday, Jan. 30, from 6 to 9 p.m. at the Hyatt Regency in downtown Indianapolis. All ISMA members and members of the Indiana General Assembly are invited to the event, which will include several games of skill, including basketball free-throw shooting. ISMA members who wish to attend should call Susan Grant, (317) 925-7545 or 1-800-969-7545.

# from the museum

In 1991, the United States will observe the 50th anniversary of its entry into World War II. Many organizations are planning special events to commemorate this event.

The Indiana Historical Society, for example, is collecting the reminiscences of Hoosiers who served during the war and will publish a special issue of its magazine, *Traces* 

The Indiana Medical History Museum is interested in preserving the history of World War II by collecting medical memorabilia and artifacts that help tell the story of the medical profession's contribution to the war effort.

Many men and women served in the U.S. Medical Services Department during World War II. The department's personnel included physicians, battlefield medics, nurses, technicians and an administrative team.

When a soldier was wounded in battle, the battlefield medic administered first aid and then moved him to the battalion aid station for further treatment. The doctors at this station treated the soldier and decided if he could return to combat or should be moved to the collecting station. If moved to the collecting station, the next stop was the clearing station, a well-equipped, temporary hospital staffed with about 12 physicians and 96 enlisted men. The soldier usually remained at this stop for a few days before being transferred to the evacuation hospital, located anywhere from 12 to 50 miles from the battlefield. These hospitals were equipped to provide major medical and surgical needs.

Finally, if the soldier required further attention, he was transferred to a general hospital, which was a fixed installation. From here he was moved to an embarkation hospital and then transported by hospital plane or hospital ship to the United States, where he received medical and surgical care in a hospital close to his home.

The museum already has some World War II medical artifacts and memorabilia. Ironically, its collection is strongest in surgical and medical items used by German physicians. One of the most interesting items in the collection is a "Truppenbesteck," a German word for troop instrument case. This large, metal surgical equipment case was used either in German field hospitals or on the battlefield. It contains 82 surgical instruments, and each item is listed in the lid of the case.

The museum also has a German first aid manual, a Red Cross arm band and an Esmarch bandage. This bandage was developed by German physician



Cover from a promotional pamphlet, U.S. Medical Services Department, World War II.

Friedrich von Esmarch (1823-1908), who introduced the idea of open wound management in amputations and wound debridement to German military surgeons in the latter part of the 19th century. His first aid bandage is unique because the directions for use, including illustrations, are printed on the cloth.

The museum also has several American items, including backpacks containing a complete set of surgical instruments, Army litters for carrying wounded troops from the battlefield and publications of the Medical Services Department.

To more completely tell the story of the medical profession's role in the war, however, the museum would like to acquire items from blood banks, printed materials relating to the Medical Services Department, nurses' uniforms and vials of sulfa, penicillin and atabrine (used to treat malaria on the Pacific front) issued during the war.

Other items that the museum would like are posters and educational pamphlets on venereal disease. During both world wars, venereal disease was a major health problem among troops. The Army and Navy produced several posters warning soldiers of the dangers of venereal disease. They also distributed chemical prophylactic kits to the troops.

Anyone who has any of these items and would like to donate them is asked to contact the Indiana Medical History Museum, 3000 W. Washington St., Indianapolis, IN 46222, (317) 635-7329.

## Events at the museum

• The exhibit, "Lifting the Veil of Secrecy: The Public Response to AIDS in Historical Perspective," will remain at the museum through Dec. 31. □

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Action: Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalmic centers and release of posterior priuitary hormone

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it; however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

Indications: Yocon® is indicated as a sympathicolytic and mydriatric. It may have activity as an aphrodisiac

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Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.<sup>1,2</sup> Also dizziness, headache, skin flushing reported when used orally.<sup>1,3</sup>

**Desage and Administration:** Experimental dosage reported in treatment of erectile impotence.  $^{1,3,4}$  1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to  $\frac{1}{2}$  tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.  $^3$ 

**How Supplied:** Oral tablets of Yocon® 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10

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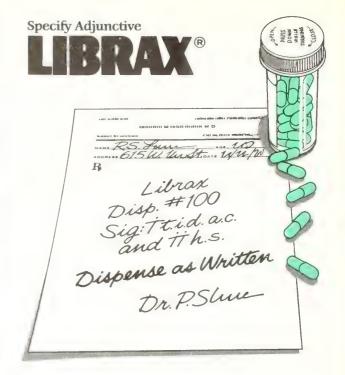
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   McMillan December Rev. 1/85.
- Weekly Urological Clinical letter, 27:2, July 4 1983.
- A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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classified the indications as follows.

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation

Contraindications: Glaucoma; prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Br. Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertiness (e.g., operating machinery, driving)

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergies, inhibition of lactation may occur. Withdrawal symptoms of the barbiturate type have occurred after discontinuation of benzodiazeomes (see Drug Abuse and Dependence).

of benzodiazepines (see Drug Abuse and Dependence). Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established. Inform patients to consult physician before increasing dose or abruptly discontinuing this drug. Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy

Drug Abuse and Dependence: Withdrawal symptoms similar to those noted with barbiturates and alcohol have occurred following abrupt discontinuance of chlor-diazepoxide; more severe seen after excessive doses over extended penods, milder after taking continuously at therapeutic levels for several months. After extended therapy, avoid abrupt discontinuation and taper dosage. Carefully supervise addiction-prone individuals because of predisposition to habituation and dependence



P.I 0288

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\*Librax has been evaluated as possibly effective as adjunctive therapy in the treatment of peptic ulcer and IBS.

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# what's new

Van Ausdall + Farrar Inc., a specialist in solving medical practice automation needs, offers a solution to the recent HCFA mandate requiring all physicians and suppliers to submit claims for every Medicare patient. The mandate applies to participating and nonparticipating health care providers.

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Arista Surgical Supply Co. has released a new alphabetized supply catalog, featuring thousands of hard-to-find instruments available at discount prices.

For a free catalog, contact Arista Surgical Supply Co. Inc., 67 Lexington Ave., New York, NY 10010, (212) 679-3694.

Poseidon Medical Supply has published a 60-page catalog detailing its medical supplies for institutional and personal care.

The catalog is divided into 28

product categories with special features highlighted for quick reference. Some categories include: safety and comfort; chairs and beds; walkers and commodes; tables, chairs and pads; hamper bags; stands and covers; carts and trucks; receptables; and gowns.

For a free catalog, contact Poseidon Medical Supplies Co. Inc., P.O. Box 529, Bayside, NY 11361, (718) 658-2662.

The Physician Executive Management Center, the country's only firm specializing in physician executive search, has published Physician Executive Guide: Everything You Need to Know About Creating and Filling a Physician Executive Position.

The 28-page book was developed in response to the increasing interest in the role of physician executives in organizations. It covers the planning and development of the position, the job description, recruitment, compensation and retention.

Complimentary copies of the guide are available from the Physician Executive Management Center, 4890 W. Kennedy Blvd., Suite 200, Tampa, FL 33609, (813) 287-1800.

Lea & Febiger have published new editions of two books, Clinical Aspects of Child and Adolescent Development and Textbook of Child Neurology.

The third edition of *Clinical* Aspects of *Child and Adolescent* Development contains up-to-date coverage of child development through late adolescence. New chapters on perception, attention

and memory, affect development and temperament have been added. New sections on major psychopathologies, psychotherapy and psychopharmacology also have been added.

The fourth edition of the *Text-book of Child Neurology* provides a comprehensive view of the clinical aspects of the field with a scientific basis and current coverage of research advances. It contains a new chapter on the neurologic examination of infants and children and updates on seizure disorders and congenital defects of the central nervous system.

To order a copy of either book for a 30-day approval, contact Lea & Febiger, 200 Chester Field Parkway, Malvern, PA 19355-9725, 1-800-444-1785.

Picker International has available a brochure describing the PRISM system, a three-head gamma camera used in Single Photon Emission Computed Tomography.

The 12-page brochure describes the features and benefits of the PRISM system and is divided into five sections. The brochure will help physicians and administrators understand how PRISM can help increase referrals for their nuclear medicine departments or nuclear medicine private practices.

News of what is new in the medical supply industry is compiled from news releases. Each item published does not necessarily constitute an endorsement of a product or recommendation for its use by INDIANA MEDICINE or the Indiana State Medical Association.



**Brief Summary.** 

Consult the package literature for prescribing information. Indication: Lower respiratory infections, including pneumonia, caused by Streptococcus pneumoniae, Haemophilus influenzae, and Streptococcus pyogenes

(group A <sub>B</sub>-hemolytic streptococci). **Contraindication**: Known allergy to cephalosporins. **Warnings: CECLOR SHOULD BE ADMINISTERED** CAUTIOUSLY TO PENICILLIN-SENSITIVE PATIENTS PENICILLINS AND CEPHALOSPORINS SHOW PARTIAL CROSS-ALLERGENICITY. POSSIBLE REACTIONS INCLUDE ANAPHYLAXIS

Administer cautiously to allergic patients.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics. It must be considered in differential diagnosis of antibiotic-associated diarrhea. Colon flora is altered by broad-spectrum antibiotic treatment, possibly resulting in antibiotic associated colitis

### Precautions:

- · Discontinue Cector in the event of allergic reactions to it · Prolonged use may result in overgrowth of nonsusceptible organisms
- · Positive direct Coombs' tests have been reported
- during treatment with cephalosporins

  Ceclor should be administered with caution in the presence of markedly impaired renal function. Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made.
- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
- Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor penetrates mother's milk. Exercise caution in prescribing for these patients

Adverse Reactions: (percentage of patients)

Therapy-related adverse reactions are uncommon Those reported include

· Hypersensitivity reactions have been reported in about 1.5% of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions have been reported with the use of Ceclor. These are characterized by findings of erythema multiforme, rashes, and other skin manifestations accompanied by arthritis/arthralgia, with or without fever, and differ from classic serum sickness in that there is infrequently associated lymphadenopathy and proteinuria, no circulating immune complexes, and no evidence to date of sequelae of the reaction. While further investigation is ongoing, serum-sickness-like reactions appear to be due to hypersensitivity and more often occur during or following a second (or subsequent) course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults with an overall occurrence ranging from 1 in 200 (0.5%) in one focused trial to 2 in 8,346 (0.024%) in overall clinical trials (with an incidence in children in clinical trials of 0.055%) to 1 in 38,000 (0.003%) in spontaneous event reports. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy; occasion ally these reactions have resulted in hospitalization, usually of short duration (median hospitalization = two to three days, based on postmarketing surveillance studies). In those requiring hospitalization, the symptoms have ranged from mild to severe at the time of admission with more of the severe reactions occurring in children. Antihistamines and glucocorticoids appear to enhance resolution of the signs and symptoms. No serious sequelae have been reported.

· Stevens-Johnson syndrome, toxic epidermal necrolysis,

and anaphylaxis have been reported rarely. Anaphylaxis may be more common in patients with a history of penicillin alleroy

Gastrointestinal (mostly diarrhea): 2.5%

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.

 As with some penicillins and some other cephalo-sporins, transient hepatitis and cholestatic jaundice have been reported rarely

Rarely, reversible hyperactivity, nervousness, insomnia confusion, hypertonia, dizziness, and somnolence have

been reported.

Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1% and, rarely, thrombocytopenia and reversible interstitial neobritis

Abnormalities in laboratory results of uncertain etiology
Slight elevations in hepatic enzymes.
\*Transient lymphocytosis, leukopenia, and, rarely, hemolytic anemia and reversible neutropenia.
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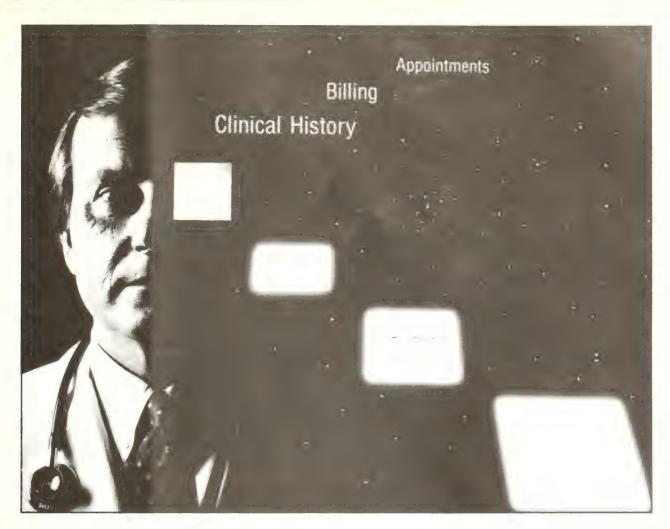
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# Balloon valvuloplasty

Patrick Bourdillon, M.D. James Dillon, M.D. Stephen Brown, M.D. Harvey Feigenbaum, M.D. Indianapolis

Percutaneous balloon valvuloplasty has been performed extensively within the last six to seven years for the treatment of stenosis of all four cardiac valves. It initially was established for pulmonic valve stenosis in children<sup>1,2</sup> and subsequently in adults.<sup>3</sup> The procedure was extended for use in aortic<sup>4,6</sup> and mitral valves.<sup>7,9</sup> It also has been used occasionally for tricuspid stenosis.<sup>10,11</sup>

The procedure received enthusiasm initially, but further data will allow a more rational assessment of its value in clinical practice. The U.S. Food and Drug Administration has approved the use of balloon catheters for pulmonic valve stenosis, but for the other valves, the use of these balloons is still experimental and performed with specific informed consent.

This article reviews the experiences of the Indiana University Medical Center and its adult patients who had these balloon procedures. We have performed 31 balloon valvuloplasty procedures, including 12 aortic, 15 mitral and three pulmonic valvuloplasties, and one tricuspid valvuloplasty, which has been described previously.<sup>11</sup>

Mitral valvuloplasty
The mean age of the 15 patients

# **Abstract**

Percutaneous balloon valvuloplasty has been used for several years for the treatment of stenosis of all four cardiac valves. It has been particularly effective in pulmonary stenosis in children and in rheumatic mitral stenosis, especially in the younger age groups without severe calcification. After initial enthusiasm, results have not been as good in severe calcific aortic stenosis, although there is a place for aortic valvuloplasty in patients who are truly inoperable for reasons of age or coexisting disease. The procedure also may be applicable to occasional cases of tricuspid stenosis. The techniques used and results obtained with these procedures at Indiana University are described.

with completed procedures was 49 years old, ranging from 18 to 74. Three of these patients had previous surgical mitral commissurotomies. One 74-year-old patient did not have previous commissurotomy but had severely calcified immobile mitral valve leaflets. The remaining 11 patients had mobile mitral valve leaflets with little or no calcification and were good candidates for the valvuloplasty procedure.

In two other patients not included in the analysis, the procedure was abandoned at an early stage, before balloon dilatation, because of difficulty in crossing a very thick atrial septum in one patient and in positioning guide wires in the left ventricle in the other patient. All patients gave informed consent at the beginning of the procedure, according to an experimental protocol approved by the Institutional Review Board.

The mitral valvuloplasty procedure was performed using a double balloon technique by trans-septal catheterization. This

involved initial trans-septal puncture using a Brockenbrough needle and Mullins sheath, followed by atrial septal dilatation with an 8-mm balloon. Two exchange guide wires were advanced into the left ventricle across the mitral valve. Then, two balloon catheters, usually 18 mm, were advanced over these wires, across the atrial septum, and were inflated when in position across the mitral valve (Figures 1A and 1B).

In the last five cases performed, a modified technique was used involving two femoral vein punctures. This technique allows a second catheter to be advanced across the atrial septum after preliminary dilatation with an 8-mm balloon. Two balloon dilatation catheters are inserted over guide wires through separate venous punctures so the puncture site is not as large as it would be with two balloon catheters alongside each other through the same puncture site. This technique caused less bleeding from the

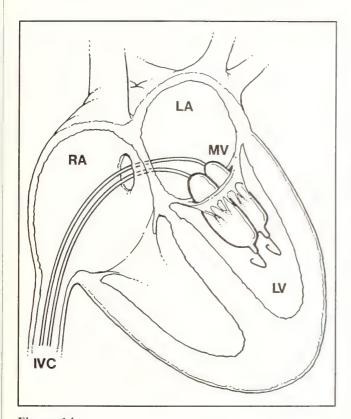


Figure 1A



Figure 1B

Figures 1A and B: Diagramatic representation (A) and single frame of cine film (B) of inflated balloons across the mitral valve. In (B) there is a slight indentation in one of the balloons that disappeared during the inflation. LV=left ventricle; LA=left atrium; MV=mitral valve; RA=right atrium; IVC=inferior vena cava.

catheterization site during and after the procedure.

In the 15 procedures performed, two major complications occurred, both involving cardiac perforation and tamponade. In the first patient, successful pericardiocentesis was performed, and the patient recovered well, except for some loss of visual acuity due to a posterior cortical infarct secondary to prolonged hypotension. In the other patient, a prolonged period of hypotension was associated with irreversible brain damage, and the patient died a few days after the procedure. This patient had a previous surgical commissurotomy, and, after tamponade was recognized as a complication, pericardiocentesis was attempted but was unsuccessful. This was due partly to scarring related to the previous surgical commissurotomy procedure. Surgical pericardiocentesis was performed as an emergency, but by the time the tamponade was relieved, the patient had suffered prolonged hypotension.

The remaining 13 cases were relatively uncomplicated with only minor bleeding at the venous puncture site. Three patients required transfusions. The amount of bleeding has been less in recent cases in which dual venous access was used, without the need for transfusion. One patient developed a significant left-to-right shunt across the atrial septum (1.5:1) that did not require further intervention.

Mean mitral valve gradient

was reduced from  $15.7 \pm 6.1$  to  $6.8 \pm 2.5$  mmHg for the 15 patients. Cardiac output increased from  $4.31 \pm 1.19$  to  $5.19 \pm 1.39$  1/min, and calculated valve area increased from 0.99 to 2.04 cm<sup>2</sup>.

Excluding the three patients with previous mitral valvulotomy (one of whom died) and the first patient treated, a 74-year-old woman with a heavily calcified valve in whom the procedure was complicated by tamponade and who had only a single balloon dilatation, mean mitral valve gradient decreased from  $17.5 \pm 6.1$  to  $6.2 \pm 2.1$  mmHg, and valve area increased from  $1.03 \pm 0.34$  to 2.26 $\pm$  0.58 cm<sup>2</sup>. These 11 patients, with a mean age of 43.6 years, have all had good, symptomatic results from the procedure after

up to two years follow-up. The first patient had a recurrence of severe mitral stenosis a year later and underwent successful mitral valve replacement.

Two-dimensional echocardiography with Doppler was performed in most patients before and after the procedure. In general, the derived mitral valve gradient and valve areas corresponded reasonably well with the catheter-devised values above. A representative echocardiogram is shown in *Figure* 2, indicating the increased mobility of the mitral valve cusps and mitral valve area.

In addition, the echocardiogram was used to derive a score as previously described by Block and coworkers<sup>13</sup> as a predictor of procedural success. A score from one (best) to four (worst) is given for each of four echocardiographic features: leaflet mobility, valve thickness, the amount of calcification and sub-valve apparatus involvement. For the group, the mean score was  $6.87 \pm 2.65$  (n=15), while for the selected group of younger patients without previous surgical valvulotomy the mean score was  $6.18 \pm 2.29$  (range 4 to 11, n=11). The other four patients had a higher mean score of 8.75 ± 2.09 (range 6 to 13). Although this difference was not statistically significant, it supports the potential value of this technique in the evaluation of patients for possible mitral valvuloplasty.

Aortic valvuloplasty

The mean age of these patients was higher than the mitral valvuloplasty patients (mean age of 77 years, ranging from 60 to 91, n=8). All patients were referred because they were high-risk candidates for aortic valve surgery.

All procedures were per-

formed by the retrograde technique through right and/or left femoral arteries. A single 20-mm balloon was used for six of the procedures. In the other six procedures, two balloons, 8 mm to 20 mm, were used. Mean aortic valve gradient was reduced from  $79.4 \pm 33.7$  to  $45.1 \pm 18.2$  mmHg (n=12). Cardiac output increased from  $4.77 \pm 0.93$  to  $4.92 \pm 0.91$  1/min, and aortic valve area calculated increased from  $0.56 \pm 0.21$  to  $0.76 \pm 0.19$  cm<sup>2</sup>.

One major complication occurred with severe aortic regurgitation due to rupture of an aortic valve leaflet associated with inferior and right ventricular infarction due to partial dissection of the right coronary artery. In this patient, aortic valve rupture occurred when 18-mm and 20-mm balloons were used simultaneously after 18-mm and 15-mm balloons together gave an inadequate result. This patient initially had poor left ventricular function and congestive heart failure and subsequently underwent aortic and mitral valve replacement successfully. However, he continued to have symptoms and signs of heart failure and died about four months later.

Four patients had repeat procedures for recurrent severe stenosis an average of seven



Figure 2: Two-dimensional echocardiograms of an 18-year-old man with severe mitral stenosis before (left) and after balloon valvuloplasty (right). In the long axis view (above), there is increased mobility of both mitral valve cusps. In the short axis view (below), there is increased mitral valve opening. Valve area increased in this patient from 0.9 cm² to 2.8 cm² by hemodynamic data obtained at catheterization. Two 18-mm balloons were used. LV=left ventricle; LA=left atrium; MV=mitral valve.

months after the first procedure. The results with these second procedures were very similar in three patients, and in one patient considerably better with the use of a dual balloon instead of a single balloon. An 81-year-old patient died one month after surgery as a result of multiple complications, including renal failure.

Pulmonic valvuloplasty

Three patients, ages 20, 26 and 38, with pulmonary valve stenosis have been treated. Two balloons were used in all cases. In the first patient, there was no significant change in gradient, probably due to the use of undersized balloons (20 mm and 8 mm). In two patients, the valve gradient was reduced successfully from 50 mmHg to 6 mmHg and from 68 mmHg to 26 mmHg. However, this was associated with an increase in dynamic subvalve stenosis in the latter patient. No significant complications occurred.

Tricuspid valvuloplasty

A single patient with rheumatic tricuspid stenosis was treated with a double balloon valvuloplasty. This procedure has been described previously. The procedure was partially successful; although the stenosis was clearly reduced, this was associated with a significant increase in tricuspid regurgitation and the development of right-bundle-branch block, probably due to the use of oversized balloons.

After the symptoms initially improved, the patient deteriorated and required surgery six months later, including tricuspid and mitral replacement. Repeat aortic valve replacement also was required eight months later due to the development of stenosis in a

mechanical aortic valve prosthesis that had been placed several years earlier.

# Discussion

The results of balloon mitral valvuloplasty are clearly superior to the results of aortic balloon valvuloplasty. Although the mortality rate for the mitral valvuloplasty series presented here is about 6% (one out of 15), there is a significant learning curve for this complex procedure. The patient who died was the fifth case performed at this institution. The results for patients without previous surgical commissurotomy have been excellent and without major complications.

The balloon mitral valvuloplasty procedure has several advantages over the surgical procedures. The balloon mitral valvuloplasty procedure is less invasive and is likely to be associated with less morbidity and mortality. Larger series have indicated a mortality rate of about 1%, at least comparable to the surgical mortality rate. The patient spends significantly less time in the hospital. For an uncomplicated procedure, the patient can be discharged within one or two days. For patients who are in sinus rhythm, anticoagulation is not needed after this procedure.

Although the procedure initially was reserved for patients at high risk for surgery or for patients who would not be good candidates for anticoagulation, <sup>14</sup> the results indicate that the procedure is a reasonable alternative to surgical therapy either by open surgical valvuloplasty or by valve replacement. The procedure also can be performed on young patients, whether or not there is a contraindication to surgery or

anticoagulation.<sup>12,13</sup> The procedure need not be reserved for patients who are high risk for surgical intervention or for those who would not be optimal candidates for chronic anticoagulation or for placement of a porcine bioprosthesis, as has been previously recommended.<sup>14</sup> The long-term results of the procedure are not known yet but are likely to be similar to those of surgical commissurotomy.

The value of aortic balloon valvuloplasty has been reassessed during the last few years although initially it received considerable national and international enthusiasm. Our experience has been similar to that described in the literature: the results of aortic valvuloplasty were not as good as expected and, although there is initial hemodynamic improvement, this does not appear to be well-sustained.<sup>14,15</sup>

It is likely that accumulating data will indicate that balloon aortic valvuloplasty in adult patients with calcified valves should be reserved for patients who are truly inoperable. Because the prognosis is so poor for elderly patients with critical aortic stenosis treated medically,16 particularly if left ventricular function is impaired, there may be a place for palliative balloon valvuloplasty, even if the chances of a good long-term result are not good. In some cases, left ventricular function may improve,17 and the patient then may become a candidate for surgery.

The question of refusing surgery sometimes occurs. However, it is not clear that all patients who have had balloon valvuloplasty after refusing surgery would refuse surgery if medical treatment was their only alternative.

Pulmonic balloon valvuloplasty is more relevant to the pediatric population but can be performed in adult patients with pulmonic valve stenosis.<sup>3</sup> Long-term results generally have been good.<sup>2</sup> Our experience is limited, but satisfactory results in most patients are possible with the use of adequately sized balloons. The subvalvar obstruction that was seen in one patient after valvuloplasty is expected to regress with time.<sup>2</sup>

Tricuspid stenosis is a rare complication of rheumatic valve disease and generally occurs with mitral and/or aortic valve stenosis. The few reports in the literature on balloon tricuspid valvuloplasty say it is a practical procedure with relatively low risk because potential complications are likely to be less severe on the right side of the heart.

We have not performed valvuloplasty in bioprosthetic valves. Although there are a few reports of balloon valvuloplasty of porcine valves,<sup>19,20</sup> specific problems may occur because of the fragility of the porcine valve leaflets, particularly with older valves. Therefore, this procedure in general cannot be recommend-

ed.19

### Conclusion

Percutaneous balloon valvuloplasty is a new interventional technique for valvular stenosis. It clearly has a place in clinical practice, but the precise role of these procedures will be determined as more experience is obtained and long-term results are analyzed.  $\square$  From the Department of Medicine, Indiana University School of Medicine, and Krannert Institute of Cardiology, Indianapolis.

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Thomas M. Broderick, M.D. Patrick D.V. Bourdillon, M.D. Michael Dalsing, M.D. James V. Faris, M.D. James C. Dillon, M.D. Indianapolis

Lyocardial revascularization has made significant strides within the last 30 years with the introduction of coronary artery bypass grafting in the late 1960s and percutaneous transluminal coronary angioplasty in the 1980s. Revascularization has substantially improved the lifestyles of many patients by alleviating symptoms and has improved survival in selected patients.<sup>1</sup> Patients with significant left ventricular dysfunction stand to improve their survival the most.2 However, these patients also carry the highest risks when undergoing revascularization by either means.

Although angioplasty originally was introduced for patients with proximal discrete single vessel disease, improvement in the technique and outcome has broadened the application.<sup>3-5</sup> Nonetheless, a small procedural risk of vessel closure continues to be present and still necessitates surgical backup under some circumstances. In addition, the dilatation of vessels providing a supply to

# **Abstract**

We report the safety and feasibility of the first three patients using cardiopulmonary bypass support at the Indiana University Medical Center during PTCA. All patients had severe left ventricular dysfunction.

Cannulation was performed using 18- or 20-French cannulae of the femoral vessels, either surgically or percutaneously. After heparinization with an activated clotting time of >450 seconds, cardiopulmonary bypass was instituted using the Bard CPS system. Flows ranged from 3.0 to 4.3 L/min. Normasol was used to prime the pump. Blood was retransfused back into the patient at the end of the procedure. Bleeding was a problem in case 1 at the arterial cannulation site and subsequently was corrected for cases 2 and 3. Coronary angioplasties were deemed technically successful.

We conclude that high-risk angioplasty can be performed in patients with poor left ventricular function using cardiopulmonary bypass support in the cardiac catheterization laboratory. Further study is indicated.

large areas of myocardium or providing circulation to patients with substantial left ventricular dysfunction often is not welltolerated by the patient, possibly resulting in hypotension, pulmonary edema, heart block and death.

Within the last several years, a partial cardiopulmonary support system (CPS) (C.R. Bard, USCI) was introduced using percutaneous insertion. This system allows dilatation in high-risk patients without adverse hemodynamic consequences because the pump provides necessary circulatory support. In addition, the other

adverse consequences of heart block, pump failure and chest pain are alleviated because the required workload and oxygen consumption of the heart are reduced substantially.

This article describes the early experiences at Indiana University Medical Center and details the benefits and problems associated with CPS use. Cases of three patients with substantial left ventricular dysfunction representing high-risk angioplasty are described.

# Method

The cardiopulmonary bypass sup-

port is achieved through 18-F to 20-F cannulae placed in the femoral artery and the right atrium, usually through the femoral vein. Multiple side-holes allow adequate flow. The cannulae can be inserted percutaneously or by surgical cutdown. The cutdown method may be the preferred approach to avoid vessel injury and to assist in subsequent removal. Although removal can be achieved by prolonged pressure, surgical repair is likely to result in fewer vascular complications.

The bypass system consists of a roller pump capable of pumping up to 6 L/min, although less usually is adequate. The system requires minimal priming with heparinized saline. Total heparinization is required during the procedure with 300 U/kg of heparin. The amount of flow can be adjusted to wean from the support system at the end of the procedure.

# Case 1

A 66-year-old white man had three previous Vineberg procedures - in 1966, 1968 and 1970. Since then, he had several myocardial infarctions and developed increasingly severe symptoms of angina, requiring several hospital admissions.

Catheterization was performed in April 1989 because of unstable symptoms and severe left ventricular dysfunction with extensive coronary artery disease. This included 90% left main coronary artery stenosis, and 100% obstruction of the proximal right coronary artery, mid left anterior descending artery and the distal circumflex with collaterals to the distal right coronary artery and circumflex. The Vineberg implants using the right and left internal mammary arteries and



Figure 1: Case 3 – Left ventriculography in the 30° RAO projection. End diastolic (left) and end systolic (right) frames.

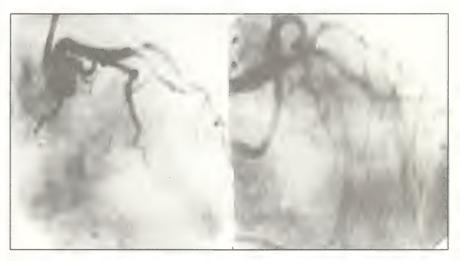


Figure 2: Case 3 – Selective left coronary angiogram in the 30° RAO projection with caudul angulation. Discrete 90% stenoses in the left anterior descending and diagonal arteries are evident (left), which are markedly improved after angioplasty (right).

gastroepiploic artery fed only small epicardial vessels without supplying significant amounts of myocardium.

Following the diagnostic catheterization, the patient required intra-aortic balloon support for treatment of persistent chest pain and heart failure. The patient was at very high risk for a surgical revascularization procedure, so left main coronary angioplasty with bypass support

after stabilization was attempted.

This procedure was done using the right internal jugular vein for percutaneous insertion of the venous cannula to the right atrium because of tortuosity and partial thrombotic occlusion of the inferior vena cava, and the right femoral artery for percutaneous insertion of the arterial cannula. Bypass support was achieved successfully, and the left main angioplasty was attempted, ini-

tially using a 3.5 mm Stack perfusion balloon (ACS) and a 3.0 mm Probe (USCI).

It was difficult to advance a wire down either the left anterior descending artery or the circumflex because of stenoses in these vessels. Although the balloon was inflated in the left main artery, it was not clear that an increase in luminal diameter was achieved. The patient tolerated balloon inflation in the left main artery while on bypass support at 4 L/min.

At the end of the procedure, there was a technical problem with the arterial cannula, which slipped out of the femoral artery causing a large hematoma through the side-holes. Bypass was discontinued immediately and re-established in the left femoral artery. Exploration and repair of the right femoral artery were achieved, and the patient was weaned from bypass.

The patient developed progressive acidosis following weaning from bypass and became hemodynamically unstable. He required a transfusion of several units of blood. In spite of prolonged attempts at stabilization, he developed electromechanical dissociation and died.

Despite this negative outcome, we were encouraged by the by-pass procedure allowing balloon inflation in the left main coronary artery of a severely compromised patient and stabilization during the resuscitative efforts following the femoral arterial bleeding. This encouraged us to undertake this procedure in other high-risk patients.

# Case 2

A 63-year-old white man with coronary artery disease since 1974

had an anterior myocardial infarction. He subsequently underwent an aneurysmectomy and coronary artery bypass surgery to the diagonal, obtuse marginal and right coronary artery. He eventually led a normal lifestyle.

In the early 1980s, he experienced recurrent angina, necessitating angioplasty in 1984 to the circumflex and posterolateral vessels. Only the right coronary artery graft was patent then. The angioplasty successfully relieved his anginal symptoms until April 1989, when he experienced an enzymatically small myocardial infarction.

The location of the infarct was obscured by a left bundle branch block pattern. The post infarct course was complicated by mild congestive heart failure symptoms and recurrent angina at low workloads. At the time of repeat catheterization, his left ventricular end-diastolic pressure was 35 mm Hg, and he had marked left ventricle dysfunction.

Selective cineangiography demonstrated occlusion of the mid left anterior descending artery and an 80% stenosis of the first diagonal branch. The circumflex vessel was of moderate size and had a proximal 80% stenosis, and the right coronary artery was occluded proximally. All three of the saphenous vein bypass grafts were occluded proximally, and the distal left anterior descending artery and right coronary artery were filled by collaterals from the circumflex.

Elective surgical revascularization carried substantial risk, given the degree of left ventricular dysfunction and associated moderate mitral regurgitation. Angioplasty, therefore, was performed using cardiopulmonary support.

Cardiopulmonary support access was achieved percutaneously in the left groin, using 20F cannulae. Flows were maintained at approximately 3.0 L/min through the procedure and then weaned following dilatation. The circumflex was dilated with a 3.5 mm Mini-profile balloon (USCI).

Diminution of the arterial waveform was noted during dilatation, but no adverse symptoms were experienced, with a maintained arterial mean pressure of 60 mm Hg. The diagonal vessel then was dilated with a 2.5 mm Hartzler LPS balloon (ACS) with less drop in the arterial waveform pressure. Finally, the right coronary artery graft was approached because the angiographic appearance suggested recent occlusion. This was opened successfully with a 3.5 mm Mini-profile balloon (USCI), but substantial thrombus was noted, and the long-term patency was in question.

After the procedure, the patient was transported to the operating room where the cannulae were removed surgically. The repair was made more difficult by inserting the arterial cannula at the bifurcation of the profounda femoral artery and the superficial femoral artery, which occurred high. The patient was relieved of his angina but experienced a minor, local wound infection.

### Case 3

A 74-year-old white woman with longstanding angina since the early 1970s was controlled with medical therapy until she suffered an acute myocardial infarction in 1984. Subsequently, she experienced the gradual return of angina, eventually producing incapacitating symptoms. Before her catheterization, she underwent a

treadmill examination that produced chest pain and ST segment changes during the first level of exercise.

A diagnostic catheterization was performed, and left ventric-

ulography revealed marked anterolateral hypokinesis, apical and diaphragmatic akinesis and inferoposterior hypokinesis (*Figure 1*). The coronary arteries included a 90% obstruction in the proximal

left anterior descending and a 90% obstruction in a large first diagonal branch (*Figure 2*).

The circumflex vessel was small and without significant disease. The right coronary artery

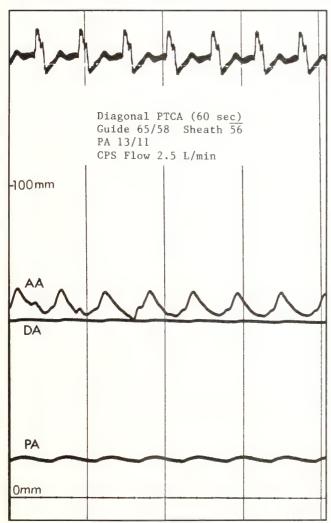


Figure 3: Pressure recordings during initial diagonal angioplasty with cardiopulmonary support at 2.5 L/min. Arterial waveform diminished and systolic blood pressure reduced. Legend: Guide= guide catheter (ascending aortic pressure); Sheath= femoral sheath (mean femoral arterial pressure); PA = pulmonary artery catheter (pulmonary pressure); and CPS flow=cardiopulmonary support flow.

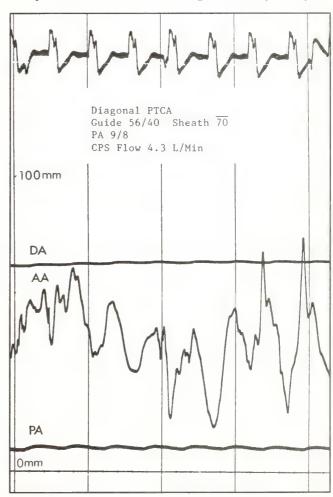


Figure 4: Pressure recordings during repeat angioplasty of diagonal branch with cardiopulmonary support at 4.3 L/min. Again noted are loss of arterial waveform and drop in systolic blood pressure, but arterial mean pressure is maintained at a higher level and the patient remains asymptomatic. Legend is the same as Figure 3.

was dominant and contained a mid occlusion with the distal vessel filling by collaterals from the left anterior descending artery. The patient was advised to undergo revascularization but declined a primary surgical approach and instead underwent elective angioplasty with cardiopulmonary support.

We placed 18-French arterial and venous cannulae in the left groin by cutdown before the initiation of cardiopulmonary support. Angioplasty was first percatheterization laboratory by the vascular surgeons. Her post angioplasty course was notable for a small non-q wave myocardial infarction, tolerated without hemodynamic sequelae. She was discharged approximately one week later and was asymptomatic.

# Discussion

Peripheral cardiopulmonary support represents a substantial technical advance for angioplasty. These three cases include patients who would have otherwise not device relates to the size of the cannulae (18F to 20F) used for vascular access. Significant strides probably will not be made in reducing the size of the cannulae with this type of device because the flow characteristics of blood necessitate a lumen of certain caliber to maintain adequate circulatory flow.14 Although some centers advocate the use of the device percutaneously, the obvious consequences of blind cannulation, the patient's discomfort and vascular complication related to percutaneous removal have influenced our choice to approach these patients with the help of the vascular surgeons. This has included insertion by cutdown and vessel repair at the time of removal.

# Peripheral cardiopulmonary support represents a substantial technical advance for angioplasty.

formed on the diagonal branch using a 3.0 mm Probe (USCI). Initial flows of 2.5 L/min were inadequate to sustain a sufficient mean arterial pressure, and the patient became symptomatic (Figure 3). The CPS flow, therefore, was increased to 4.3 L/min, resulting in a higher mean arterial pressure and the absence of symptoms during the next inflations (Figure 4).

Angioplasty then was performed on the left anterior descending artery, first by predilating with a 1.3 mm Mini-Hartzler LPS (ACS) and then following dilatation with the 3.0 mm Probe (USCI). During the dilatation of the left anterior descending artery, the diminution of her arterial waveform was less than noted during angioplasty of the diagonal branch. She subsequently was withdrawn from cardiopulmonary support without problems.

The cannulae were removed and the vessels repaired in the

tolerated the procedure or would have been at substantial risk for adverse outcomes. The initial case illustrated the technical problems associated with this procedure, but the success with providing peripheral cardiopulmonary support has encouraged us to continue the program.

The current approach at the IUMC is to use the technique for elective revascularization of patients with severe left ventricular dysfunction. The experience described in cardiology literature at other centers performing this technique has been encouraging in groups undergoing elective highrisk angioplasty.8-12 Further application likely will arise in the future, particularly for patients who have suffered acute vessel closure and hemodynamic collapse before emergency revascularization with coronary artery bypass graft sur-

The major technical problem associated with the use of this

# Conclusion

As experience with peripheral cardiopulmonary support grows, the system probably will receive wider application in alleviating some adverse complications of vessel closure and increasing the safety and applicability of highrisk angioplasty. Further refinements in the techniques probably will follow, thereby reducing the vascular access problems and complications. Some improvements may occur by a change in the support delivery system, such as the Hemopump that incorporates an internally rotating turbine catheter.14 🖵

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# Look-alike and sound-alike drug names

ANAPROX

Category:

Nonsteroidal antiinflammatory

Brand name: Anaprox, Syntex Generic name: Naproxen

Dosage forms: Tablets

ANASPAZ

Belladonna alkaloid

Anaspaz, Ascher L-hyoscyamine sulfate

**Tablets** 

PRIMAXIN

Category: Antibiotic
Brand name: Primaxin, MSD
Generic name: Imipenem-Cilastatin
Dosage forms: Powder for injection

PERMAX

Parkinson's disease Permax, Lilly

Pergolide mesylate

Tablets

# ■drug names

Benjamin Teplitsky, R. Ph. Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions.

Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such lookalike and sound-alike drug names can reduce potential errors.

# Transient ischemic attack:

# The presenting manifestation of transient asystole

Michael E. Pauszek, M.D. Franklin, Ind.

Jerbezius first described the loss of consciousness associated with a slowing of the pulse in 1719. Stokes, in 1846, recognized the relationship between a decreasing cardiac output with bradycardia and associated change in cerebral function. Syncope, lightheadedness and dizziness are common manifestations of profound bradycardia and transient asystole. Uncommonly, unusual symptoms such as irritability, fleeting memory loss, slurring of speech and a sensation of falling may be the only manifestation.1

All symptoms have as the common etiology the development of transient global ischemia from lack of cerebral perfusion. Localized atherosclerotic lesions of intracranial vessels can potentially predispose patients to focal neurologic signs and symptoms as the manifestations of their global cerebral ischemia.<sup>2</sup> This article discusses a patient with focal neurologic findings as the only manifestation of his transient asystole.

Case history

A 73-year-old white man went to the emergency department Nov. 15, 1988, following the onset of slurred speech and the inability to use his left upper extremity. The

# **Abstract**

A patient with a focal transient neurologic deficit and no evidence of other underlying disease as an etiology is diagnosed with episodic asystole. His neurologic deficit was reproduced with episodes of asystole. The combination of asystole and localized intracranial atherosclerotic disease can produce focal neurologic deficits and should be considered in the differential for transient ischemic attack. It is easily preventable and responds to permanent implantation of a transvenous pacemaker.

patient's symptom complex lasted five minutes and was unassociated with loss of consciousness, diaphoresis, chest pain or other generalized symptoms.

He was seen in his home by a clinic nurse shortly after his symptoms resolved, and at the time, his blood pressure and pulse were unremarkable. He then was referred to the emergency department for evaluation. He had no history of similar symptoms.

The patient had a history of angina pectoris, adequately controlled with metoprolol since Dec. 30, 1987. He had been physically active without recurrence since that date. He was last seen as an outpatient June 10, 1988.

Physical exam revealed a mildly obese, very pleasant man. His temperature was 96.7°F orally, respirations were 14, pulse was 80 and blood pressure was 176/90. On examination of the head and neck, the carotid upstrokes appeared intact. No bruits were

audible. His pharynx was clear. Funduscopic exam was normal. No thyroid enlargement or adenopathy were noted. Thoracic, abdominal, genitourinary and extremity exams were all unremarkable. At the time of his initial evaluation, his neurologic exam was normal.

Laboratory data included a normal chest x-ray, 12-lead electrocardiogram, complete blood count and chemistry panel.

Because the nature of the patient's transient symptom complex was unclear, the complete evaluation included performance of carotid massage. There was no change in his pulse or reproduction of his symptom complex with right carotid massage. Massage of the left carotid produced 3.2 seconds of asystole and neurologic symptom recurrence, including slurred speech and weakness of the left hand and arm. On exam, after carotid massage, an obvious loss of the nasolabial fold on the

left was noted. The entire symptom complex lasted less than six minutes. During the symptom complex, there was no recurrence of bradycardia or asystole.

Following the resolution of his neurologic deficit, the patient was admitted to a monitored bed, and the metoprolol therapy was discontinued.

Despite the removal of the beta blocker from his regimen, the patient continued to manifest episodes of asystole with recurrence of his symptom complex (*Figure*). Carotid Doppler studies were unremarkable. On Nov. 18, 1988, a permanent transvenous pacemaker was implanted (VVI). Later that day, metoprolol therapy was reinstituted. He was discharged Nov. 20, 1988. He was last seen as an outpatient April 4, 1990, and had no symptom recurrence. His angina continues to be controlled with the metoprolol therapy.

# Discussion

Symptoms directly attributable to a cardiac source are limited dyspnea, pain, palpitation, syncope and swelling. Focal neurologic deficits generally are not considered cardiac symptoms. However, transient ischemic cerebral events have a high probability of originating from both the extracranial carotid circulation and left heart structures. In fact, many echocardiograms in a community hospital are performed specifically to view the left cardiac chambers as potential sources for new neurologic deficits.

However, even in the presence of a known cardiac abnormality that could potentially serve as a source of emboli, other etiologies must be considered. This

patient had no underlying anatomic abnormality, either of the extracranial carotid circulation or the left heart structures, to serve as a source of embolic phenomenon. During the hospitalization, the relationship between his neurologic symptoms and dysrhythmia was confirmed repeatedly. Undoubtedly, he had fixed vessel disease involving the distribution of the right middle cerebral artery, predisposing him to the development of focal symptoms with his asystole.

# Conclusion

In a typical patient with transient neurologic deficits without underlying cardiac or extracranial disease, aspirin or anticoagulation therapy would be started. This therapy is useful but non-curative. It is professionally rewarding to evaluate a patient and determine the cause of his symptom complex. It also is gratifying to provide a virtually curative therapeutic intervention, such as the implantation of a permanent transvenous pacemaker. Though the combination of dysrhythmia and focal intracranial atherosclerotic disease must be an unusual cause for a transient neurologic event, it is worth considering in the absence of other obvious etiology.

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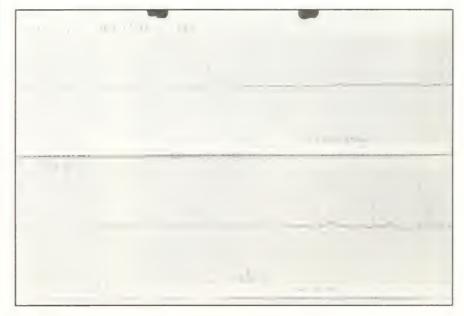


Figure: The presenting manifestation of transient asystole.

# Abnormal catheter position after central venous line placement

Jerome P. Quets, M.D. Indianapolis

A 57-year-old woman was admitted to a county hospital with numerous medical problems. During her hospitalization, a right subclavian central venous catheter was placed. Satisfactory position and function were documented.

After approximately one week, this catheter was removed and replaced with a central venous catheter placed through the left subclavian vein. After this

catheter was placed, a chest film was obtained (Figure 1A).

Differential diagnosis

The central venous catheter is seen descending along the left side of the mediastinum (arrow). Possible locations of the catheter include intravenous, intra-arterial and extravascular spaces. These spaces include: 1) the left internal mammary vein; 2) a persistent left superior vena cava; 3) the descending aorta via the left subclavian artery; 4) the mediastinum; or 5) the pleural space.

Clinical staff reported easy return of venous blood through the catheter. This supports, but does not prove, an intravenous position of the catheter.

A lateral chest film was obtained to localize the catheter position (*Figure 1B*). The catheter may be seen passing near the posterior border of the heart to the coronary sinus (arrows). This course confirms the presence of a left superior vena cava. This patient had been evaluated previously for a similar occurrence, at which time left superior vena cava

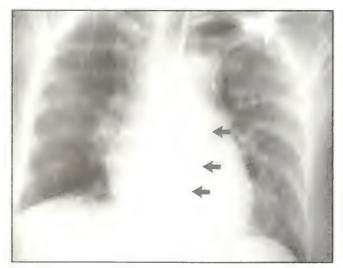


Figure 1A



Figure 1B

had been demonstrated angiographically. The normal position of the patient's prior right subclavian catheter implies the patient has bilateral superior vena cava (SVC).

# Discussion

Persistent left SVC is the most common anomaly of the great veins leading to the heart. An overall prevalence of 0.3% is cited. In pediatric patients with congenital heart disease, a higher prevalence is described, ranging from 2% to 11%. The prevalence is especially high in the presence of situs abnormalities (72%) and total atrioventricular septal defects (26%).

The left SVC arises from a persistence of the bilateral symmetry present in the embryo. In most patients with a left SVC, a right SVC also is present. Embryologically, the bilateral anterior and posterior cardinal veins join to form the right and left ducts of Cuvier, which drain into the sinus venosus and then into the right atrium. These ducts initially lie in the transverse plane, but as the heart migrates inferiorly, they eventually lie in the long axis, conducting blood inferiorly to-

ward the heart.

Normally, a communication between the left and right anterior cardinal veins develops (and eventually becomes the left brachiocephalic vein), permitting drainage of the left superior veins through the right system. This permits obliteration of the left anterior cardinal vein from below the communicating branch to the left duct of Cuvier. The left duct of Cuvier becomes the oblique vein of the left atrium, and the left horn of the sinus venosus becomes the coronary sinus. The right duct of Cuvier and the right anterior cardinal vein join to form the right SVC. If the communicating vein fails to adequately form or "confusion" over left/right symmetry arises, the left anterior cardinal vein may persist as a left SVC. In most cases, the left SVC reaches the right atrium through an enlarged coronary sinus. It infrequently connects directly to the left atrium, in which case it may cause cyanosis.

The presence of a left SVC is of no pathologic significance in itself. It may be associated with other cardiac anomalies. Its unexpected presence may cause difficulties during thoracic surgeries.

Placement of catheters and infusion of medicines within the coronary sinus carry at least theoretical cardiac risks.

A left SVC may be suspected from plain chest radiographs from the presence of a widening of the aortic shadow, a paramediastinal bulge or strip or a crescent along the upper left cardiac border to the mid-clavicle.

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# Triscaphe arthritis

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The triscaphe joint¹ encompasses the scaphoid-trapezium, scaphoid-trapezoid and trapezium-trapezoid joints and frequently is involved in osteoarthritis that occurs within the basilar joint region of the thumb (Figure 1). Pain within this joint significantly limits hand function due to the loss of motion and strength within the first ray.

A separate article will review trapezial metacarpal arthritis, which is the first of the pantrapezial joints, or joints surrounding the trapezium, to become involved in arthritis, according to Eaton.<sup>2</sup> North<sup>3</sup> states that the trapezial-metacarpal and

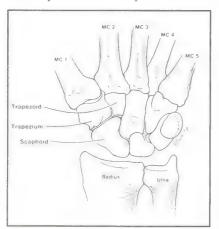


Figure 1: Diagram of triscaphe joint that includes trapezium-trapezoid, scaphoid-trapezium and scaphoid-trapezoid.

scapho-trapezial joints primarily are involved in the degenerative process because of their exposure to direct axial compression forces transmitted through their joint surfaces during pinching.

This bony architecture is stabilized by a thick volar scaphotrapezial-trapezoid capsule reinforced by the volar scaphotrapezial ligament running from the scaphoid tuberosity to the trapezial ridge. Thick dorsal and volar trapezial-trapezoid ligaments stabilize the trapezium to both the trapezoid and the base of the second metacarpal. These pan-trapezial ligaments provide much greater stability to the pantrapezial joints than is seen at the first metacarpal trapezial joint. This ligamentous complex, however, can become attenuated through joint effusion, synovitis and biomechanical factors.

A pain-deformity cycle begins when patients avoid pinching because of pain that develops in the thumb after use. This pain causes the patients to hold their thumb in an adducted position, juxtaposed to the index ray, which can lead to the development of a first web space adduction contracture of the skin, first dorsal interosseous, adductor pollicis and joint capsule. As motion becomes more restricted in the triscaphe joint, compensatory movements in the more distal thumb articulations, primarily the metacarpophalangeal joint, evolve. These compensatory movements, usually hyperextension of the metacarpophalangeal joint, lead to

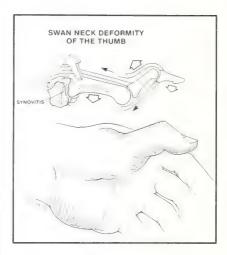


Figure 2: Swan-neck deformity of the thumb arising from carpal metacarpal arthritis. Consists of subluxation of basilar joint with hyperextension of metacarpophalangeal joint and flexion of interphalangeal joint.

subsequent deformities of this joint (i.e., swan-neck deformity) (*Figure 2*).

The ulnar collateral ligament of the metacarpophalangeal joint also may become attenuated, leading to radial subluxation of the joint during pinching. Biomechanically, because of these two common secondary deformities, much of the muscle power allocated for pinching is dissipated through the collapse deformities of the metacarpophalangeal joint, resulting in powerless pinch.

De Quervain's stenosing tenosynovitis, scaphoid nonunion, neuroma of the superficial branch of the radial nerve and ganglions are conditions that may produce

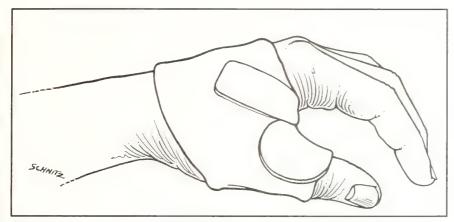


Figure 3A: A short opponens splint immobilizes the trapezial-metacarpal joint while permitting wrist motion.

radial side wrist and thumb pain. These conditions should be considered in the differential diagnosis of triscaphe arthritis.

Radiographic changes seen in triscaphe arthritis include subchondral cortical sclerosis with hypertrophic bone spurring along the ulnar-most aspect of the trapezium, known as the medial osteophyte. This osteophyte is best seen in a hyperpronation view of the first metacarpal<sup>4</sup> and can be associated with subluxation of the base of the first metacarpal on the trapezium. Rotatory subluxation, or dorsal displacement of the distal surface of the scaphoid, often occurs in advanced arthritis, affecting the trapezial-scaphoid joint. This subluxation affects other intercarpal joints and precipitates malalignment within the adjacent carpal joints and alters wrist biomechanics.5

Normal hand use relies heavily on a functional thumb. Treatment for this basilar joint arthritic condition in the early stages relies on joint stabilization through the use of external immo-

bilization. A short opponens splint (Figure 3A) immobilizes the thumb in a palmar adduction position and is helpful when the arthritic process involves only the trapezial-metacarpal joint. A long opponens splint (Figure 3B) is recommended when the arthritic process involves the triscaphe joint. In crossing the wrist, this splint immobilizes the scaphoid and restrains movement at the scapho-trapezial joint. In addition to immobilization, gentle range of motion exercises are necessary to prevent joint stiffness that may evolve from disease and immobilization.

Nonsteroidal anti-inflammatories and the judicious use of intra-articular steroids may be used with splinting. Avoiding activities that inflame the symptoms is necessary for successful conservative management of this problem.

Eventually, the patient should decide between perpetual medical management with splints and modification in daily activities or surgical intervention. Surgery will allow the patient to resume

functional activities without splints or activity modification.

Surgical treatment for this condition must address the pantrapezial nature of this arthritic condition. Excision of the trapezium is the fundamental surgical technique used for this condition. Tendon graft or foreign material (silicone) is then interposed in the cavity created by trapezial resection. Silicone synovitis may develop within the wrists of patients with silicone trapezial interposition arthroplas-

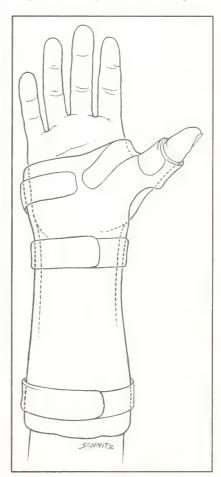


Figure 3B: A long opponens splint immobilizes the wrist and triscaphe joints.

ties (Figure 4). Thus, tendon interposition and basilar joint ligament reconstruction for the treatment of triscaphe joint arthritis have increased.

The secondary joint changes that may develop at the metacar-pophalangeal joint also must be addressed surgically to succeed in triscaphe joint reconstruction. Therefore, fusion or ligamentous stabilization of this joint may be necessary.

Rehabilitation often takes four to six months before pinch strength and motion allow a return to former activities.

This is another in a series of monthly articles on hand conditions from the Indiana Center for Surgery and Rehabilitation of the Hand and Upper Extremity in Indianapolis.

Correspondence: James J. Creighton Jr., M.D., Hand Surgery Associates, P.O. Box 80434, Indianapolis, IN 46280-0434.

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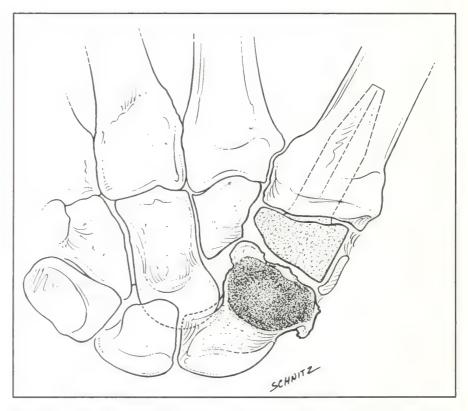


Figure 4: Wrist drawing illustrates radiographic changes seen with silicone synovitis, including deformity of the trapezial implant and cystic collapse of the distal pole of the scaphoid on which the implant sits.

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# Maternal mortality in Indiana:

## A report of maternal deaths in 1988

William D. Ragan, M.D. Indianapolis

This is the annual report of the Indiana Maternal Mortality Study Committee.

In 1988, Indiana recorded five maternal deaths and 81,414 live births. These statistics give the state a maternal mortality rate of 6.14 deaths per 100,000 births for 1988.

The committee met in open session at Ob/Gyn Grand Rounds at Indiana University at 10 a.m. June 7, 1989. The function of the committee was reviewed, and updated statistics were presented.<sup>1,2</sup> Two of the 1988 death summaries were presented and discussed for educational purposes. Dr. Ragan presented a paper on maternal mortality in the United States and in Indiana.

The committee adjourned to the Student Union Building for a closed discussion of the five 1988 deaths. Each case was presented for discussion, establishment of diagnosis and assignment regarding preventability and responsibility.

The five deaths discussed were the following:

Case 784: June 26, 1988. A

29-year-old divorced white woman, G3, P2, 34 weeks' gestation. Death was considered obstetric and direct. The cause of death was eclampsia.

Case 785: Aug. 22, 1988. A 31-year-old married white woman, G1, P0, 4 to 6 weeks' gestation. Death was considered nonobstetric. The cause of death was a medical complication and pregnancy: sarcoidosis.

Case 786: Sept. 2, 1988. A 30-year-old married white woman, G2, P1, twin gestation at 34 to 35 weeks' gestation. Death was considered obstetric and direct. The cause of death was a medical complication of pregnancy: hyperkalemia.

Case 787: Sept. 16, 1988. A 17-year-old single white woman, G1, P0, 20 weeks' gestation. Death was considered nonobstetric. The cause of death was a medical complication and pregnancy: pneumococcal pneumonia. The woman had a recent abortion.

Case 788: Oct. 22, 1988. A 30-year-old married white woman, G4, P2, AB2, term pregnancy. Death was considered obstetric and indirect. The cause of death was a medical complication of pregnancy: cerebral vascular acci-

dent? Eclampsia?

#### Discussion

There is a changing trend regarding the causes of maternal mortality. The time-honored causes of hemorrhage, infection and toxemia have been replaced in the United States by embolism, nonobstetric injuries, hypertensive disease of pregnancy, ectopic pregnancy and obstetric hemorrhage.<sup>34</sup> In Indiana, the leading causes of death now are medical complications, hemorrhage, embolism, infection, toxemia and anesthesia.

The leading cause of maternal death in the United States is pulmonary embolism. Thromboembolism remains an enigma because early recognition and prevention can be difficult. Ten cases of air embolism are recorded in Indiana statistics. These cases often are related to oral/genital sex, and education of antepartum patients would be helpful.<sup>5</sup> Fortunately, amniotic fluid embolism is rare.

Indiana has reported no cases of maternal death due to ruptured ectopic pregnancy since 1984. Early diagnosis of this condition is now possible with laparascopy, sensitive pregnancy tests and ultrasound.

Deaths due to toxemia often represent a low standard of prenatal care, which we hope can be improved. Physician education, increased availability of good prenatal care and proper referral may help the pregnant patient with a medical complication.

Because AIDS is expected to increase among women, more cases of pregnancy-associated deaths due to this cause will prob-

ably occur.6

There has been concern that the rising cesarean section rates in the U.S. might result in an increase in maternal mortality. At least one article has shown that the risk of maternal death from cesarean section is low.<sup>7</sup>

The American College of Obstetricians and Gynecologists and the Centers for Disease Control are collaborating to collect data on maternal deaths by states and districts.<sup>3</sup> The CDC recently initiated a pregnancy mortality surveillance study.

The Public Health Service and the U.S. Surgeon General have set a goal of no more than five maternal deaths per 100,000 live births by 1990.<sup>8</sup> In the United States, maternal deaths in the white population have already achieved this goal. Maternal death in black and other nonwhite populations approximates 18 per 100,000 live births. The average maternal mortality rate in Indiana for 1978-1987 is 7.74 per 100,000. For 1987, the rate was five per 100,000. It appears that Indiana may approach the 1990 goal set by the Surgeon General.

Combined efforts of these organizations should provide more meaningful statistics to continue to curtail preventable maternal mortality in the United States. Several recent articles have pointed out that maternal mortality is one of the great neglected problems of health care in developing countries. Rates are as much as 100 times higher than those seen in industrialized countries.<sup>9,10</sup>

Maternal mortality still exists. While the numbers are small, the Indiana Maternal Mortality Study Committee believes that it is important to investigate and report these deaths for statistical and educational purposes. According to our records, many of these deaths are preventable or have preventable factors. In addition, there are undoubtedly many "near misses." We must remain vigilant.  $\square$ 

The author is a professor in the Department of Obstetrics and Gynecology at the Indiana University School of Medicine and chairman of the Maternal Mortality Study Committee.

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## Indiana State Medical Association

## 1990 Annual Convention & Exposition

Friday, Nov. 2 Saturday, Nov. 3 Sunday, Nov. 4

## Radisson Hotel Indianapolis

- \* House of Delegates
- \* Reference Committees
- \* Medical Section Meetings
- \* General Education Session
- \* President's Night Dinner and Entertainment
- \* "Flashback to the Fifties"

### Abridged schedule of convention events

Thursday, Nov. 1	
6 – 7 p.m.	Board of Trustees reception
7 – 8 p.m.	Board of Trustees dinner
1	
Friday, Nov. 2	
	Rules and Order of Busi-
	ness
9 a.m. – noon	House of Delegates, first
	session
11 a.m. – 5 p.m	Exhibits open
1 – 5 p.m	Reference Committees
5 – 7 p.m	Theme reception
7 – 10 p.m.	
8 – 10 p.m.	7th District-Marion County
	Afterglow
Saturday, Nov. 3	
	Board of Trustees breakfast
	meeting
8 – 10 a.m	Key Contact seminar
	*

9 – 11 a.m	.PICI/Risk management
	seminar
Noon – 2 p.m	.IMPAC luncheon
	.General education session on
-	Medicare
6 – 7 p.m	.President's Night reception
	.President's Night dinner
10 p.m. – midnight	.10th District-Lake County
	Afterglow
10 p.m midnight	
	County Afterglow
Sunday, Nov. 4	
7 – 9 a.m	.Board of Trustees breakfast
	meeting
9 a.m. – noon	.House of Delegates, final
	session
Noon – 1:30 p.m	.Trustees organizational
A	meeting

### Official call

The House of Delegates of the Indiana State Medical Association will convene at 9 a.m., EST, Friday, Nov. 2, 1990, in the Plaza Ballroom of the Radisson Hotel in Indianapolis.

The House will reconvene for its second (final) session at 9 a.m., EST, Sunday, Nov. 4, 1990, in Plaza Ballroom.

Representation in the House for the 1990 annual meeting will be as follows:

Indianapolis – 37 delegates Lake County – 14 delegates Allen County – 10 delegates Vanderburgh County – 8 delegates

St. Joseph County – 7 delegates

Delaware-Blackford counties – 5 delegates

Owen-Monroe and

Tippecanoe counties – 4 delegates each

Bartholomew-Brown, Elkhart, LaPorte, Madison, Porter, Vigo and Wayne-Union counties – 3 delegates each

Clark, Daviess-Martin, Dearborn-Ohio, Fayette-Franklin, Floyd, Fountain-Warren, Grant, Harrison-Crawford, Howard, Jefferson-Switzerland, Parke-Vermillion and Shelby-Rush counties – 2 delegates each

The remaining 53 Indiana county medical societies – 1 delegate each

Trustees – 15
Past presidents – 18
Resident Medical Society – 4
delegates

Študent Medical Society – 4 delegates

Total delegates – 228. □

## Reception features '50s theme

The convention's annual theme reception will take ISMA members back to the days of hula hoops, ducktails, poodle skirts and bobby socks. "Flashback to the Fifties" will be from 5 to 7 p.m. Friday, Nov. 2, in Plaza C-E.

A disc jockey will spin records from the '50s. The menu will include hamburgers, hot dogs and milkshakes.

The reception will give ISMA members an opportunity to visit with exhibitors in an informal setting.

Reception sponsors are Bell Atlantic TriCon Leasing, Blue Cross/Blue Shield of Indiana, GTE Cellular Communications, Medical Protective Co., Physicians Insurance Co. of Indiana and Williams/Townsend Agency.

### Specialty groups schedule meetings

Several ISMA specialty sections have scheduled meetings during the annual convention. All meetings will be at the Radisson Hotel.

The meeting of the Association of Indiana Directors of Medical Education will feature a program on "Accelerated Family Practice Residency Program – An Experiment in Medical Education." The group will meet from 11:30 a.m. to 1:30 p.m. Friday, Nov. 2. Alan K. David, M.D., of the University of Kentucky Medi-

cal School will discuss the pilot program at the school that combines the fourth year of medical school with the first year of the UK family practice residency.

The Section on Preventive Medicine and Public Health will meet from 8:30 to 11 a.m. Saturday, Nov. 3. Morris Green, M.D., State Health Commissioner of Indiana, will speak on "Current Trends in Teenage Health." Dr. Green will discuss the most critical teenage health problems and services needed to prevent health problems.

Lee Rogers, M.D., president of the American College of Radiology, will speak at the Roentgen Society meeting, scheduled from 9 a.m. to noon Saturday, Nov. 3. A 9 a.m. executive committee meeting will precede the general membership meeting and program beginning at 10 a.m.

The Internal Medicine Society will meet from 9 a.m. to noon

Saturday, Nov. 3.

The Section on Otolaryngology-Head and Neck Surgery will meet from 1 to 2 p.m. Sunday, Nov. 4. □

## President's Night to feature music of Jimmy Coe



Jimmy Coe

George H. Rawls, M.D., will end his term as ISMA president with the annual President's Night events Saturday, Nov. 3.

The evening will begin with a reception from 6 to 7 p.m. in Suites 15 and 16. Dinner and entertainment will follow from 7 to 10 p.m. in the Plaza Ballroom.

Tenor saxophonist Jimmy Coe and his big band will entertain after dinner. Coe, whose family moved to Indianapolis from Tompkinsville, Ky., a year after he was born, attended Crispus

Attucks High School. Coe organized a band while serving in the Army from 1943 to 1945 and later organized a seven-piece band for the Ferguson Hotel in Cincinnati.

After performing in Indianapolis at such places as George's Bar on Indiana Avenue, he went on the road from 1953 to 1956. His album, "Honkers and Bar Walkers, Volume One," an anthology of sax-based rhythm and blues originally released in 1953, was re-released under the Delmark label early this year.

### NBC News correspondent to speak at IMPAC luncheon



News Correspondent John Dancy will speak at the convention's annual IMPAC luncheon, scheduled from

noon to 2 p.m. Saturday, Nov. 3, in Plaza C-E.

Dancy has been covering the

U.S. Senate for the "NBC Nightly News" for the past five years and frequently is anchorman for the nightly "NBC News Update." He has served as a foreign correspondent in Europe and as a senior White House correspondent. He has covered such events as the Lebanese Civil War in 1975, the Middle East War of 1973, the Camp David talks that brought the peace agreement between Israel and Egypt, the presidential

campaigns of Ronald Reagan and George McGovern and the flight of Apollo 11.

Dancy has won the Dupont-Columbia Award for Excellence in Broadcast Journalism, the Overseas Press Club's Citation for Excellence and a national Emmy Award.

"Washington, The World and George Bush" will be Dancy's topic at the IMPAC luncheon.

### Commercial exhibitors of the 1990 ISMA annual convention

#### Computer companies

BBM Office Products
Bradford-Scott Data Corp.
Medical Accounts Group
Ranac Computer Corp.
Van Ausdall + Farrar, Inc.

#### Financial planners/investment counselors

Fringe Benefit Planners Indiana National Bank

#### Governmental agencies

Indiana Army National Guard

#### Insurance companies

Blue Cross/Blue Shield of Indiana Physicians Insurance Company of Indiana The Medical Protective Company Williams/Townsend Associates

#### Laboratory services

The Medical Laboratory

#### Medical equipment companies

Becton Dickinson
Bell Atlantic TriCon
Corinthian Pharmaceutical

#### Pharmaceutical companies

Eli Lilly & Co. Knoll Pharmaceuticals Russ Pharmaceuticals Summit Pharmaceuticals

#### Miscellaneous

Caylor-Nickel Clinic, PC Encyclopedia Britannica, USA GTE Cellular Communications Indiana Academy of Family Physicians Indiana Department of Human Services Indiana Heart Institute Indiana Medical History Museum Medical Media Sentinel Medical Review Organization

### Seminar to focus on Key Contact Program

ISMA members can learn what role they can play in the legislative process by attending the Legislative Key Contact Seminar from 8 to 10 a.m. Saturday, Nov. 3, in Suites 11 and 12.

Steven Rivelis, a national political consultant and president of Campaign Consultation, will discuss the importance of physicians'

participation in the political arena. He will provide information on how physicians, their spouses, office staffs and patients can influence public policy as "grass-roots lobbyists."

Mike Abrams, ISMA director of government relations and marketing, will conclude the seminar with an explanation of the ISMA's recently updated Legislative Key Contact Program. The updated program will include a "telephone tree" that emphasizes peer-to-peer contact among ISMA members. The improvement is designed to make more physicians' voices heard by legislators who otherwise might hear only one side of an issue.

## General education session features Medicare

Tina Dillard, ISMA reimbursement coordinator, will focus on Medicare issues as she conducts the general education session from 2 to 4 p.m. Saturday, Nov. 3, in Suites 11 and 12.

Topics include Medicare reasonable charge methods, the Omnibus Budget Reconciliation Act of 1989, topics of interest discussed at the ISMA/Associated Insurance Companies Inc. meetings on Medicare, and an overview of the Harvard resource-based relative value scale and its effect on different specialties.  $\square$ 

## Risk management seminar slated

Barbara Killila, director of education and risk management for the Physicians Insurance Co. of Indiana, will speak on "Medical Malpractice – Realities of the '90s' from 9 to 11 a.m. Saturday, Nov. 3, in Plaza B.

The risk management seminar is designed to increase physicians' awareness of the underlying causes of malpractice allegations

to help them identify and correct practice habits that might lead to litigation. Killila also will discuss the importance of maintaining quality medical records and how to use good patient rapport as a primary way to prevent lawsuits.

All physicians attending will receive two CME Category I credits, and all PICI insureds will receive 5% "Preferred Risk" premium credits.

### Hospitality suite open for spouses

Spouses are invited to visit a hospitality suite that will open Friday, Nov. 2, from 1 to 4:30 p.m. and Saturday, Nov. 3, from 9 a.m. to noon.

Selected videos from the American Medical Association Auxiliary and a new video from the Ruth Lilly Center for Health Education, located in Indianapolis, will be available for viewing. An ISMA Auxiliary representative will be present to answer questions.

Candace Backer, the ISMA coordinator for the Physician Assistance Program, will be present from 2 to 3 p.m. Nov. 2 and from 10 to 11 a.m. Nov. 3 to discuss the services offered through the program.

## ISMA trustee districts





George H. Rawls, M.D., president Indiana State Medical Association 1989-1990

## Presidents of ISMA since its organization

Medical Convention	Elected	Served	* Joseph Rilus Eastman, Indianapolis		1918
* Livingston Dunlap, Indianapolis	1849	1849	* William H. Stemm, North Vernon		1919
			* Charles H. McCully, Logansport		1021
Medical Society	Elected	Served	* David Ross, Indianapolis * William R. Davidson, Evansville		1921
* William T.S Cornett, Versailles	1849	1850	* Charles H. Good, Huntington		1923
* Ashahel Clapp, New Albany		1851	* Samuel E. Earp, Indianapolis		1924
* George W Mears, Indianapolis	. 1851	1852	* Eldridge M. Shanklin, Hammond		1925
* Jeremuah H. Brower, Lawrenceburg		1853			
* Elizur H. Deming, Lafayette		1854 1855	Medical Association	Elected	Served
* Madison J. Bray, Evansville .  * William Lomax, Marion		1856	* Charles N. Combs, Terre Haute		1926
* Daniel Meeker, LaPorte		1857	* Frank W. Cregor, Indianapolis		1927
* Talbot Bullard, Indianapolis		1858	* George R. Daniels, Marion		147,24
* Nathan Johnson, Cambridge City		1859	Charles E. Gillespie, Seymour		1929
* David Hutchinson, Mooresville		1860	* Angus C. McDonald, Warsaw		1930
* Benjamin S. Woodworth, Fort Wayne	1860	1861	* Alois B. Graham, Indianapolis		1931
* Theophilus Parvin, Indianapolis	1861	1862	* Franklin S. Crockett, Lafayette		1932
* James F. Hibberd, Richmond		1863	* Joseph H. Weinstein, Terre Haute		1933
* John Sloan, New Albany		-	Everett E. Padgett, Indianapolis      Walter J. Leach, New Albany		1935
* John Moffett (acting), Rushville .		1864	* Roscoe L. Sensenich, South Bend		1936
* Samuel L. Linton, Columbus  * Wilson Lockhart (acting), Danville		1865	* Edmund D. Clark, Indianapolis		1937
* Myron H. Harding, Lawrenceburg		1866	* Herman M. Baker, Evansville		1938
* Vierling Kersey, Richmond		1867	* Edmund M. Van Buskirk, Fort Wayne		1434
* John S. Bobbs, Indianapolis		1868	* Karl R. Ruddell, Indianapolis	1438	1940
* Nathaniel Field, Jeffersonville		1869	* Albert M. Mitchell, Terre Haute		1941
* George Sutton, Aurora	1869	1870	Maynard A. Austin, Anderson		1942
* Robert N. Todd, Indianapolis	1870	1871	* Carl H. McCaskey, Indianapolis		1943
* Henry P. Ayres, Fort Wayne	1871	1872	* Jacob T. Oliphant, Farmersburg		1944
* Joel Pennington, Milton		1873	* Nelson K. Forster, Hammond		1945
* Isaac Casselberry, Evansville			* Jesse E. Ferrell, Fortville * Floyd T. Romberger, Lafayette		1946 1947
* Wilson Hobbs (acting), Knightstown		1874	* Cleon A Nafe, Indianapolis		1948
* Richard E. Houghton, Richmond * John H. Helm, Peru		1875 1876	* Augustus P. Hauss, New Albany		1949
* Samuel S. Boyd, Dublin		1877	* C. S. Black, Warren		1950
* Luther D. Waterman, Indianapolis		1878	* Alfred Ellison, South Bend	1949	1951
* Louis Humphreys, South Bend	1878		* J. William Wright, Indianapolis	1950	1952
*Benjamin Newland (acting), Bedford (v.p.)		1879	* Paul D. Crimm, Evansville		1953
* Jacob R. Weist, Richmond		1880	* William Harry Howard, Hammond		1954
* Thomas B. Harvey, Indianapolis	1880	1881	* Walter L. Portteus, Franklin		1955
* Marshall Sexton, Rushville		1882	* Walter U. Kennedy, New Castle		1956 1957
* William H. Bell, Logansport		1883	* Elton R. Clarke, Kokomo		1958
* Samuel E. Mumford, Princeton		1884	* Kenneth L. Olson, South Bend		1959
* James H. Woodburn, Indianapolis * James S. Gregg, Fort Wayne		1885 1886	* Earl W. Mericle, Indianapolis		1960
* Gen. W. H. Kemper, Muncie		1887	* Guy A. Owsley, Hartford City		1961
* Samuel H. Charlton, Seymour		1888	* Harry R. Stimson, Gary		1962
* William H. Wishard, Indianapolis		1889	* Maurice E. Glock, Fort Wayne		1963
* James D. Gatch, Lawrenceburg		1890	* Donald E. Wood, Indianapolis		1964
* Gonsolvo C. Smythe, Greencastle	1890	1891	Joseph M. Black, Seymour		1965
* Edwin Walker, Evansville		1892	* Kenneth O. Neumann, Lafayette		1966
* George F. Beasley, Lafayette		1893	* Eugene S. Rifner, Van Buren * G. O. Larson, LaPorte		1967
* Charles A. Daugherty, South Bend		1894	Patrick J. V. Corcoran, Evansville		1969
* Elijah S. Elder, Indianapolis		1005	Lowell H. Steen, Hammond	1968	1970
* Charles S. Bond (acting), Indianapolis		1895 1896	Malcolm O. Scamahorn, Pittsboro	1969	1971
* James H. Ford, Wabash		1897	Peter R. Petrich, Attica		1972
* William N. Wishard, Indianapolis		1898	* James H. Gosman, Indianapolis	1971	1973
* John C. Sexton, Rushville		1899	Joe Dukes, Dugger		1974
* Walker Schell, Terre Haute		1900	Gilbert M. Wilhelmus, Evansville		1975
* George W. McCaskey, Fort Wayne		1901	Vincent J. Santare, Munster		1976
* Alembert W. Brayton, Indianapolis		1902	John W Beeler, Indianapolis     Eli Goodman, Charlestown		1977 1978
* John B. Berteling, South Bend		1903	James A. Harshman, Kokomo		1978
* Jonas Stewart, Anderson		1904	* Arvine G. Popplewell, Indianapolis		1979-80
George T. MacCoy, Columbus     George H. Grant, Richmond		1905 1906	Alvin J. Haley, Carmel		1981
* George J. Cook, Indianapolis		1907	Martin J. O'Neill, Valparaiso		1982
* David C. Peyton, Jeffersonville		1908	John A Knote, Latayette	1981	1983
* George D. Kahlo, French Lick	1908	1909	George T. Lukemeyer, Indianapolis	1982	1984
* Thomas C. Kennedy, Shelbyville	1909	1910	Lawrence E. Allen, Anderson		1985
* Frederick C. Heath, Indianapolis	1910	1911	Paul Siebenmorgen, Terre Haute		1986
* William F. Howat, Hammond	. 1911	1912	Shirley Thompson Khalouf, Marion		1987
* A. C. Kimberlin, Indianapolis		1913	John D. MacDougall, Beech Grove		1988
* John P. Salb, Jasper		1914	Fred W. Dahling, New Haven George H. Rawls, Indianapolis		1989 1990
* Frank B. Wynn, Indianapolis		1915	George 11. Nawis, mulanapolis	1 200	1 77()
* George F. Keiper, Lafayette		1916 1917	* Deceased		
* John H. Oliver, Indianapolis	1916	171/			

Editor's note: The annual reports that were not submitted in time to be included in this issue will be printed in the January 1991 issue of INDIANA MEDICINE.

## EXECUTIVE COMMITTEE George H. Rawls, M.D., chairman

Funding for the House of Delegates-mandated Physician Assistance Commission occupied a significant amount of the ISMA Executive Committee's time. An appeal for voluntary contributions from hospital medical staffs and administrators lead to \$26,000 in collections. To follow-up on longterm funding, the executive committee appointed an ad hoc committee to procure final funding for the program. The ad hoc committee's report resulted in a resolution to be voted on by the 1990 House of Delegates. Additionally, it recommended an additional blank be added to the ISMA dues statement for voluntary contributions.

The executive committee perceives the mission of the Physician Assistance Committee as extremely important and recommended to the board that a full-time master's-level counselor be hired to administer the Physician Assistance Program.

A report from George S. Olive & Co. early in the year identified some ways to strengthen ISMA's accounting system and procedures. This adhered to the association's strategic plan.

The executive committee issued a joint letter with Sentinel, the PRO, to announce the development of a "dummy" treatment authorization number (D-TAN). The purpose of D-TAN is to expedite reimbursement to hospitals and physicians when emergency

situations prevent compliance with requirements for pre-procedure review.

Requests for funding from two organizations resulted in a \$1,000 one-time contribution to the Indiana Federation of Older Hoosiers and a \$2,500 contribution to the Indiana Medical History Museum. The ISMA has met periodically with the federation during the last five years to discuss medical issues of importance to older people and physicians. Federal budget reductions left the federation in a financial crunch. For the last two years, the ISMA has been a federation-sponsoring organization. The contribution to the Medical History Museum will be used for its gallery. In addition, ISMA staff was authorized to change the ISMA dues statement to give physicians a choice in the amount they would like to contribute to the museum.

In an effort to cut postage costs and provide ISMA's membership roster to only those physicians who wanted it, the executive committee authorized the staff to provide a return request order form, rather than send rosters to every member.

Because of the demand from ISMA members for assistance from ISMA's reimbursement coordinator, the executive committee authorized the executive director to hire an additional reimbursement/practice management staff member.

#### BOARD OF TRUSTEES William C. Van Ness II, M.D., chairman

The ISMA Board of Trustees has been active this year in dealing with several difficult problems in Indiana.

The Medicare Liaison Committee solved some ongoing state problems. This committee, which meets monthly with Medicare representatives, has improved several matters involving physicians and Medicare, especially Medicare reimbursements. We look forward to further success with this committee.

Impaired physicians also were discussed by the board. Because of the need for an impaired physician program, the board financially supported the Physician Assistance Program, as directed by the House of Delegates. Additionally, the board appointed an ad hoc committee on long-term funding for the commission. As a result of the ad hoc committee's report, the board of trustees will submit a resolution asking the ISMA House of Delegates to cover the cost of the commission through either an increase in membership dues or by pursuing legislation for an increase in licensure fees.

During this year, the impaired physician program has grown and succeeded in sending physicians back to work, where they again become active community members. The program's success, however, requires additional expenses. Because the program is important, we supported it financially and emotionally. We provided funds to continue its operation and will continue to seek alternate sources of financing.

The ISMA continues to examine how it can best communicate with and serve the needs of our members. Toward that end, the board approved the ad hoc communications task force's report that suggested INDIANA MEDICINE's focus change from a scientific journal to a socio-economic magazine that will be published six

times a year.

The recommendations were forthcoming following focus groups and a readership survey that indicated INDIANA MEDICINE'S readership was low and that members rated the publication as below average in usefulness to them in their medical practices.

The board has been active in regulations concerning the Clinical Laboratories Improvement Act of 1988. ISMA lobbyists have been aggressive and have found support from U.S. senators and representatives who want to evaluate and make changes to coincide with modern medical technology. We thank all Indiana physicians who wrote their legislators. This campaign has been highly effective.

The board established a PRO Liaison Committee, similar to the Medicare Liaison Committee, while searching for additional solutions to PRO review problems. This committee will meet monthly to improve communications between PROs and Indiana physicians. We hope these meetings will decrease the unnecessary intervention into the practice of medicine, as seen by physicians.

We do, however, encourage physicians to improve documentation. Many letters received by physicians are reversed after a physician gives additional information that originally should have been documented.

The board also established a new Legislative Key Contact Program, emphasizing peer contact through a "telephone-tree" network. According to this plan, 46 physician county organizers will contact one other physician. Those physicians will notify their legislators and two other physicians about legislative issues. In addition, we hope each physician

can identify and contact five to 10 patients to gain support about individual issues.

I hope this report will help you face future challenges. We must act together because as individuals we surely will fall.

In closing, I must praise and commend the board members with whom I have worked closely this past year. They are concerned and dedicated to face medicine's difficult problems.

#### AMA DELEGATION Marvin E. Priddy, M.D., chairman

During the 1989 ISMA Annual Convention, two dedicated members of our delegation, Thomas Tyrrell, M.D., of Munster and Martin O'Neill, M.D., of Valparaiso chose not to run for reelection to the delegation. Herbert Khalouf, M.D., of Marion was elected to fill the delegate vacancy created by Dr. Tyrrell.

The ISMA House elected John MacDougall, M.D., of Beech Grove and William Van Ness II, M.D., of Summitville to fill the two alternate delegate vacancies. Their two-year terms began Jan. 1, 1990. I thank Drs. Tyrrell and O'Neill for their dedication in representing Indiana in the AMA House of Delegates. I also recognize the remaining members of the delegation for their active roles:

#### **Alternates**

Alvin Haley, M.D., Indianapolis John Knote, M.D., Lafayette George Lukemeyer, M.D., Indianapolis Pete Petrich, M.D., Attica Herbert Khalouf, M.D., Marion Richard Reedy, M.D., Yorktown Delegates

Max Hoffman, M.D., Covington William Van Ness II, M.D., Summitville Shirley Khalouf, M.D., Marion Ed Langston, M.D., Indianapolis John MacDougall, M.D., Beech Grove

Interim meeting

Aside from the beautiful surroundings of Honolulu, the 1989 Interim Meeting, held Dec. 3 through 6, was busy and productive. A major policy update on the medical, legal and social complications of AIDS and HIV infection was among the 266 items of business included for consideration.

Highlights of the board report adopted by the House addressed the following: 1) recommended contact tracing and notification of needle partners; 2) recommended the AMA Council on Medical Service study the cost of care for patients in each stage of HIV infection and estimate the number of people in each stage now and in five years; 3) pledged ongoing support for funding for research, education and patient care, as well as for alternatives to inpatient care; 4) encouraged physicians to provide information to patients about HIV prevention and to become more involved in the care of HIV-infected patients; 5) asked federal and state agencies to establish rigorous proficiency testing and quality control procedures for testing labs frequently and regularly; and 6) reaffirmed its commitment to mandatory testing of inmates in federal and state prisons and supported mandatory testing of all newborns in high-prevalence areas.

In other AIDS-related action, the House: recommended the U.S. Food and Drug Administration not allow home test kits for

HIV; requested that the FDA address the problem of readable instructions for condoms; and encouraged state legislation to establish requirements for reporting and case follow-up for serious contagious disease, including HIV infection.

The Board of Trustees Report QQ (Strengthening the AMA - Fiscal Responsibility and Oversight) was of great interest. It outlined the results of the investigation conducted by an independent legal counsel in light of AMA incidents that were reported in a Chicago newspaper.

In a speech before the House, James Sammons, M.D., former executive vice president, admitted his error and accepted responsibility for the decisions. The report listed the following actions by the

board:

• To strengthen board oversight of the association and to define limitations of EVP authority, there will be a restructuring of board committees to include: 1) a Finance Committee with broad authority to review and monitor the fiscal policies, procedures, and finances of the association; 2) an Audit Committee to review and monitor the auditing activities of the association; and 3) a Compensation Committee to review performance and authorize the compensation of senior staff;

• To improve the operation of the AMA, the board will formulate and institute specifically defined limits upon the authority of the executive vice president in respect to monetary compensation and health policy matters to conform to the exercise of the board's fiduciary responsibilities;

 All expenditures, unless otherwise budgeted, in excess of \$100,000, shall be approved by the chairman of the board; and • AMA policies on providing loans to employees shall be evaluated and defined by the board.

A resolution encouraging state medical societies to urge their state legislators to adopt a blood alcohol level of 0.05% as the legal limit for intoxication was included in House action. This resolution also encouraged state medical societies to work with Congress to make federal highway funds to states contingent on the state's adoption of a 0.05% blood alcohol level.

Many citizens are concerned because approximately 37 million Americans do not have health insurance. A resolution, introduced by the American Academy of Family Physicians and adopted by the House, asked the AMA to reaffirm its support for ensuring access to health care for the uninsured through a combination of employer-sponsored coverage and other private approaches, such as risk pools and the AMAproposed restructuring of Medicaid and Medicare programs. The resolution also asked the AMA to implement a program ensuring health care access for the uninsured as a high legislative priority in the 101st Congress.

**Annual Meeting** 

Before the 1990 annual meeting held June 24 through 28 in Chicago, James Todd, M.D., was appointed AMA executive vice president. Dr. Todd, former senior deputy executive vice president, was chosen by a committee following a six-month national search for a new executive vice president.

The volume of business at the annual meeting was the heaviest in AMA history, with 295 resolutions and 110 reports.

In response to Resolution 13

(I-89), the board, in consultation with the Council on Medical Service and the Council on Legislation, presented a basic benefits package for the required employer insurance program. The board and councils stated that: 1) enactment of any program requiring employer coverage should not create insurmountable financial obligations on small employers: 2) most employer-provided health insurance will continue to exceed substantially the minimum benefits that they are recommending; and 3) the goal of the association is to extend affordable coverage where none exists now.

In a related action, the House also approved a substitute resolution asking the AMA to commit all appropriate resources to provide leadership and ensure that this nation begins the process of defining, in detail, the basic nationwide standards for a uniform, minimum-yet-adequate, health care benefits package for the un-

employed uninsured.

A substitute resolution regarding the new Medicare physician payment system that addressed issues of geographic disparity and other economic considerations was adopted by the House. It asked the AMA to: 1) eliminate geographic variations in Medicare payment; 2) establish in the 1990 Budget Reconciliation Act a floor on 1991 Medicare payments for physician services at 80% of the national average prevailing charge; and 3) ensure that the RBRVS-based Medicare payment system is implemented in a manner that reflects appropriate economic considerations.

Concerning regulation of physician office laboratories, the House adopted a substitute resolution that in part asked the AMA to: 1) protest the reported high

costs being considered for certification of laboratories and the limited number of laboratory categories proposed; 2) protest the very limited list of waivered tests.

Indiana submitted a resolution on therapeutic substitution, which was amended by the reference committee and adopted by the House. It asks the AMA to: 1) oppose the establishment of a system at the federal or state level premised on therapeutic interchangeability of prescription drugs and formularies, since it will inevitably interfere with the ability of the patient's physician to assure that the medication prescribed is dispensed to the patient; 2) encourage and assist all states in passing legislation prohibiting the practice of therapeutic substitution; and 3) provide education to physicians and the general public that therapeutic substitution is not equal to generic substitution and provide information about the potential dangers of therapeutic substitution.

The House elected John Ring, M.D., Illinois, president-elect. It re-elected John Clowe, M.D., New York, speaker of the House, and Daniel Johnson Jr., M.D., Louisiana, vice speaker. Following a vigorous campaign, Indiana's candidate, John Knote, M.D., of Lafayette was elected to a threeyear term on the AMA Council on Medical Service. We are proud to have George Lukemeyer, M.D., of Indianapolis on the AMA Council on Medical Education and Shirley Khalouf, M.D., of Marion as a nominee to the AMA Women in Medicine Advisory Panel.

Our entire delegation works diligently at each AMA meeting to voice Indiana's perspective on vital issues affecting Hoosier physicians and the delivery of health care. The AMA House meetings are conducted democratically. They provide a unique educational experience because a wealth of information is disseminated and discussed.

If you cannot attend these meetings, you are represented by your delegate. Let your delegation know your opinions.

## RESIDENT MEDICAL SOCIETY Lynn A. Witty, M.D., president

Many national issues are keeping the ISMA's Resident Medical Society active in representing the interests of resident physicians. This year brought several new topics to the forefront, while work on existing projects continued.

Membership, as always, is a continuing interest. This year, we hope to use the chief resident as our liaison to various programs, allowing residents to interact more closely with ISMA/RMS representatives to exchange ideas and discuss issues. Membership recruitment packets with application forms for the ISMA/RMS have been sent to all incoming residents, and mailings to current house staff also continue.

The sixth annual Practice Opportunities Program was held this year at the Indianapolis Hyatt Regency, allowing residents to meet recruiters and discuss possible job opportunities with hospitals, clinics and practices. The Starting Your Practice Workshop will be co-sponsored by the ISMA/RMS and the Indiana Academy of Family Physicians. It will be a three-day workshop conducted by a representative from the AMA Practice Management Department. This program is specifically designed for residents who are considering starting or joining a practice.

A new workshop with the Physicians Insurance Company of Indiana and the Indiana National Bank is planned for next year. It will serve as an outreach program to orient resident physicians to the programs and concerns of the ISMA/RMS, while providing an informative meeting with topics of interest to residents, such as professional liability insurance and financing a practice.

Finally, two issues of particular interest this year involve student loan repayment and resident work hours. A survey will be sent to all Indiana resident physicians to address the resident work hours and student loan deferment issues to determine trends and identify specific problems in Indiana. The ISMA/RMS also is participating in a mass mailing to congressmen concerning student loan repayment. We hope to influence a revision of the policy to allow deferment of loan payments during residency.

Six delegates, a full delegation, represented the ISMA/RMS at the AMA annual meeting in Chicago. We look forward to participating at the interim AMA meeting and the ISMA annual convention.

### MEDICAL STUDENT SECTION Todd Rumsey, president

The Medical Student Section enjoyed a productive year. We hoped to increase participation at local and national meetings, increase student awareness of current issues in medicine, host a regional meeting for medical students and pass resolutions on state and national levels.

We are proud because all of our goals were met. The MSS

doubled its attendance at the state meeting in March, sent 25 students to I-89 and sent 50 students to A-90. We also sponsored a resolution, encouraging mass screening for neuroblastoma, that passed at A-90. Our regional meeting in March was successful because nine schools from five states were represented. Members of the MSS continue to serve on ISMA committees.

In 1990-91, we will include a series of workshops for legislative updates, budgeting and new advances in medicine. We continue to be active in the student-to-student program, where medical students visit community schools and youth groups to explain the effects of alcohol, tobacco, drugs and AIDS.

The MSS thanks the ISMA and all of those who have given the ISMA-MSS financial and moral support during the year.

#### PHYSICIANS INSURANCE COMPANY OF INDIANA Dave Duncan, president and CEO

Marketing activities this year reflect PICI's determination to ensure appropriate long-term protection for Indiana physicians, maintain its current policyholder base and attract new policyholders. We have become a dominant source of medical professional liability insurance in Indiana because of innovative coverage and service features and direct physician involvement in our operations. An increasingly competitive and "soft" market environment, reflecting national trends, means we must continue to seek effective ways of meeting the specialized insurance needs of physicians and reducing their risk exposure.

For the second consecutive year, we held the line on premium levels. This was possible mainly by operating efficiencies and strict controls over loss adjustment expenses. Concurrently, a new risk classification, Class 1-A, with rate levels about 30% below Class 1, was established for a number of nonsurgical medical specialities. Actuarial reviews also supported a reduction in risk classification for several specialties and a premium discount for anesthesiologists using certain procedures and equipment.

A new plan, call MedGroup, is designed specifically for medical groups or corporations with 10 or more physicians. It provides coverage for each physician, medical personnel and the group entity, with available premium discounts based on loss experience, risk management programs and characteristics of each group.

A Young Physicians Program, commencing with the individual doctor's medical residency or first years of practice, features premium levels that reflect the initially low and gradually rising risk exposure of doctors entering practice.

This fall, PICI will introduce a plan for individual physicians that offers premium discounts for attendance at risk management seminars and for claims-free experience.

ISMA members have been advised of these important developments through various brochures, medical journal advertisements, presentations at medical society meetings and regular issues of our newsletter, *PICI Digest*.

One of this year's major marketing developments was expanded risk management activities. PICI's risk management specialists have initiated an ongoing series of risk management seminars that may be co-sponsored by local medical societies and/or major hospitals. PICI also will provide counsel and assistance on risk management procedures and controls to medical groups or individual physicians. A new quarterly newsletter is devoted exclusively to risk management topics and new items.

PICI works closely with the ISMA to retain current laws and regulations related to medical malpractice that concern physicians and patients. While legislation enacted this year raised the level of compensation provided by the Indiana Patient's Compensation Fund, we succeeded in avoiding legislative actions that would have removed or altered certain restraints and controls that have been effective.

PICI is pleased and appreciates the strong support we receive from ISMA leadership and staff. In Indiana, as in a large number of other states today, there is evidence of intentional underpricing by insurers who seek growth at the risk of long-term fiscal instability. This has happened many times before and has resulted in situations that pose dangers for physicians: "catch-up" rate increases; unfairly restricting underwriting practices; and abandoning the market.

We are making every effort to alert Indiana physicians to the serious future problems created by underpricing or by "alternative coverage plans" that may leave gaps in protection. We encourage open discussion among physicians about the types of coverages and services offered by insurers in our state. We also urge discussion about those companies' operating

philosophies, objectives and longterm commitments to Indiana physicians. PICI wants Indiana physicians to have a choice, but that choice should not risk market instability and/or produce a volatile medical professional liability environment.

#### SECOND DISTRICT Paul Wenzler, M.D., trustee

The Second District met at the Elk's Club in Sullivan, but golfers were disappointed by storm damage that left trees on the course. However, Otis Bowen, M.D., provided insight into the problems of an aging society and the government's solutions.

Many physicians in the Second District need to develop their leadership abilities. Jerome Melchior, M.D., of Vincennes was elected trustee, and James Beck, M.D., of Washington was elected alternate trustee.

I thank each physician in the Second District for helping me serve four years as alternate trustee and three years as trustee. I will continue to participate at the state level as this year's IMPAC chairman and whenever needed in the future. Again, thank you for your unfailing support.

The ISMA continues to act in the best interest of all Indiana physicians. Continuing concerns include the budget, the building, key contacts, proliferation of government regulations, attacks on the malpractice bill and on "bad" Indiana physicians.

Let's roll up our sleeves and keep Indiana medicine at its current high standard. I look forward to seeing each of you at the annual convention in November.

#### THIRD DISTRICT Gordon L. Gutmann, M.D., trustee

The Third District held its annual meeting Saturday, May 12. Floyd County, the sponsoring county, had good attendance, including a few members from surrounding counties. ISMA leadership updated us on several issues confronting medicine. The meeting concluded with an afternoon at Churchill Downs.

Membership is continually bothered by potential "Quality of Care" letters from Sentinel. Even though most of these letters are overturned eventually, they are a bother and require time and energy. The number of patients and the difficulty of their illnesses are increasing, placing more stress on practitioners. As the Joint Commission continues to make changes in quality and the PRO continues to look over our shoulders, medicine gets more frustrating.

In response to Dr. George Rawls' request to get young people interested in medicine, we started a program allowing high school juniors and seniors to "shadow" physicians at our hospital. We hope this program will steer some young, bright minds into medicine.

On the lighter side, congratulations to the son of a Clark County physician for winning \$6 million in the first Indiana lottery.

#### FOURTH DISTRICT William E. Cooper, M.D., trustee

The Fourth District annual meeting was held at the Madison Country Club in Madison May 4 and was well-attended. Eddie Grogan, a Conner Prairie inter-

preter, portrayed an 1820s family practitioner. His program was enjoyed by all.

As you know, this year was a "short" legislative session. Next year will be more of a test of our legislative alert system. To respond more quickly to changes in legislation, George Rawls, M.D., has developed a "telephone tree" legislative action plan. Further information will follow.

At this writing, the method of long-term financing of the Commission on Physician Assistance is being reviewed. This commission will be responsible for the discovery, confrontation and initial treatment of physicians who are addicted to drugs or alcohol. This subject will be presented to the House of Delegates at the ISMA annual convention Nov. 2 through 4 at the Radisson Hotel in Indianapolis.

I thank Janna Kosinski, our ISMA field representative, for excellent coordination of and care to the Fourth District Medical Societies.

#### SIXTH DISTRICT C.G. Clarkson, M.D., trustee

This year's planning meeting for the Sixth District meeting was Feb. 7, 1990, at the Holiday Inn in Shelbyville. Daniel Rains, M.D., president of the Sixth District, presided. Potential speakers for the May 9 meeting were discussed. Topics and subjects concerning the Sixth District activities and organization were discussed.

This year, the Sixth District meeting was at the Holiday Inn in Shelbyville. A golf tournament was held at the Elk's Club in the morning, and a business meeting, started by Dr. Rains, was held in the afternoon. Stephen Dillinger,

M.D., secretary/treasurer, gave a complete report of the Sixth District meeting at the Greenfield Country Club held May 10, 1989.

Dr. Dillinger was elected president; Dennis Roberts, M.D., vice president, and Richard Carson, M.D., secretary/treasurer. Next year's district meeting will be Wednesday, May 8, 1991, in Connersville. Rush and Shelby counties have combined as a single county medical society.

Due to the depletion of the treasury funds, a dues increase from \$7 to \$10 was moved and approved. The average dues per

district is \$10.

George Rawls, M.D., ISMA president, and other dignitaries were introduced by Dr. Rains. Each gave a report on ISMA activities and membership. Richard King, ISMA executive director, reported on the new legislative "telephone tree," where membership responds to issues during the legislative session.

William R. Carden, Ph.D., presented a financial program. The program was informative, enlightening and thought-provoking. After his presentation, about 65 members and guests ate dinner and listened to Mayor William H. Hudnut III, a candidate for Secre-

tary of State.

Again this year, I was elected from the ISMA Board of Trustees to serve on the ISMA Executive Committee. I continue to express interest in serving on this committee and intend to provide input from the Sixth District. I look forward to future participation and opportunities for input.

The Sixth District commends Bob Sullivan for his service to the district as an ISMA field representative. He informs us of ISMA activities during his regular county visits and spends the day answering questions from constituents or members.

I continue to welcome ideas and suggestions from all district members and hope to represent them adequately as district trustee. I commend Ray Haas, M.D., for attending the board of trustees meetings, especially when I was unable to attend. I congratulate him on his election as alternate trustee. Dr. Haas and I look forward to representing the Sixth District next year.

SEVENTH DISTRICT Donna J. Meade, M.D., Peter L. Winters, M.D., and John L. Records, M.D., trustees

It has been a privilege to represent the Seventh District Medical Society and assist and support ISMA leadership this year. We are proud of the leaders from our district, especially ISMA President George H. Rawls, M.D., who unselfishly gave his time on behalf of Indiana medicine.

It has been a year of tough decisions. "Change" could be the theme for the Seventh District this year; even the date of the meeting was changed to accommodate the busy schedules of our leaders. The district bylaws also were changed and updated. Editorial changes brought the terminology of the bylaws up-to-date, and a stagger of alternate trustees' terms was accomplished.

Charles O. McCormick III, M.D., and Ronald Blankenbaker, M.D., were re-elected alternate trustees. Bernard J. Emkes, M.D., was chosen district president-elect and alternate trustee, succeeding Willis W. (Woody) Stogsdill, M.D. Dr. Stogsdill will resign as alternate trustee at this year's ISMA convention to enjoy his retire-

ment.

More than 200 children of all ages ate dinner and enjoyed the comedy and magic of Carl Andrews ("that's me") following the business meeting. The children also appreciated the delights of the Indianapolis Children's Museum. The evening was an enjoyable combination of business and family entertainment.

Although it is not a district position, we would be remiss if we failed to note the decades of exemplary service of fellow Seventh District member Frank Ramsey, M.D. For nearly 40 years, Dr. Ramsey served as editor of INDIANA MEDICINE. Until his retirement this year, Dr. Ramsey saw many changes in medicine and the publishing industry. We owe a debt of gratitude to Dr. Ramsey for his dedication and service.

Other changes, mostly political, are likely as the year ends. Your trustees have been active to prepare for elections and reapportionment. The Patient's Compensation Act, Medicaid reimbursement and office laboratory laws and regulations are among many issues that will receive attention. This year, we visited Washington, attended the ISMA legislative reception, participated as Physician of the Day and met with candidates and committees.

Even our office address has changed. Because of the Indianapolis Medical Society's move, district mail should be sent to 631 E. New York St., Indianapolis, IN 46202-3706.

#### EIGHTH DISTRICT William C. Van Ness II, M.D., trustee

The Eighth District's annual meeting was held at the Delaware Country Club in Muncie and was chaired by Susan Pyle, M.D., president.

At the business meeting, ISMA leaders spoke, and the county society presidents discussed problems in their areas. Informative discussions followed the presentations.

William C. Van Ness II, M.D., completed his second and final three-year term as trustee. John Osbourne, M.D., alternate trustee, was elected trustee. Dr. Pyle was elected alternate trustee.

During dinner, Stormy Johnson, M.D., vice speaker of the AMA House of Delegates, spoke on the AMA and the future of medicine. We are pleased he is an AMA leader.

Throughout the year, the trustee, the alternate trustee and the district's county presidents and secretaries met quarterly. These meetings provide an opportunity to discuss local problems and disseminate ISMA information. I hope these meetings continue.

Once again, I thank the members of the Eighth District for their support and encouragement during my six years as trustee. I hope I can continue to serve organized medicine.

## ELEVENTH DISTRICT Jack W. Higgins, M.D., trustee

The 1989 11th District meeting was held at the Wabash Country Club Aug. 20 and had fair attendance. Wabash County hosted the meeting and provided a Ha-

waiian luau. John (Hap) Dragoo, M.D., was master of ceremonies. Steven Ahlfeld, M.D., spoke on anabolic steroids.

I encourage all 11th District members to attend the district and state annual meetings. We must continue to try to protect the medical profession and our patients from intrusions by government, insurance companies, industry, organized labor and the legal profession. We must continue our battles in the political arena, where every physician should participate. The ISMA currently has reorganized the Legislative Key Contact Program in which you should participate.

Larry Mussleman, M.D., alternate trustee, and I welcome your input. We thank the members of the 11th District for allowing us to serve them.

## THIRTEENTH DISTRICT Alfred C. Cox, trustee

The annual meeting of the 13th District was held Sept. 12, at Knollwood Country Club in South Bend. Members enjoyed golf, tennis and racquetball before the afternoon business meeting, directed by District President Thomas Eberts, M.D., of South Bend. President-elect Mark Ballard, M.D., of LaPorte invited the district to attend next year's meeting at Pottawattomie Country Club in Michigan City. John W. Schurz, M.D., of South Bend presented the treasurer's report.

District members ate dinner and listened to the Notre Dame Glee Club. I thank Richard Houck, M.D., of Michigan City for his help and support as alternate trustee.

#### COMMISSION ON CONSTITU-TION AND BYLAWS Helen Geyer Czenkusch, M.D., chairman

A meeting of the Commission on Constitution and Bylaws was not necessary. The incorporation of the resolutions passed by the 1989 House of Delegates into bylaws was the only business brought to the commission.

Resolution 89-3 was an exception. As an amendment to the constitution, it requires a second vote by the 1990 House. With the approval of the commission members, the revised 1990 Constitution and Bylaws are presented as the commission's annual report.

#### COMMISSION ON LEGISLATION Eugene Roach, M.D., chairman

The 1990 legislative session kept the Commission on Legislation busy because:

1) The House of Representatives was evenly split with 50 Democrats and 50 Republicans. This laid the groundwork for partisan bickering.

2) It was the longest "short" session in recent memory. The general assembly did not adjourn until March 13.

3) The 1,025 bills introduced set a record for the most introduced in a short session. ISMA lobbyists identified nearly 200 bills that required at least distant monitoring by the commission.

However, between all the political posturing and confusion, the general assembly considered and passed some significant legislation regarding health care. Two of the major health-related bills that passed this year are:

House Bill 1217 - As passed,

HB 1217 contained several provisions relating to health care. These include requirements that: tanning facilities be licensed and inspected by the state board of health; physicians, when requested to do so, routinely provide patients with an itemized bill for services for which a third party was billed; the state board of health promulgate rules as to which tests should be conducted on semen donations; the physical therapy committee issue licenses to applicants under certain circumstances; and the state board of health conduct a survey to assess the shortage of nurses in Indiana.

House Bill 1224 - This bill included provisions that: restrict the placement of vending machines that sell tobacco products; allow a birth certificate to be amended when paternity is proven by DNA analysis; add six members to the Governor's State Health Policy Commission and require the commission to study universal health insurance; and expand SOBRA Medicaid eligibility for pregnant women and infants until age 6 up to 133% of the federal poverty level.

Some significant bills pertaining to health care were introduced this session but did not pass. As introduced, HB 1265 required that Indiana establish a Canadian-style health care system. This bill was amended quickly in the House Public Health Committee to simply require that the State Health Policy Commission study the proposal. HB 1242 sought to criminalize negligent health care by creating a new crime, "neglect of a patient," punishable as a class B felony or a class D felony if the neglect resulted in serious bodily injury or death. This bill was introduced by Rep. Bob Alderman on behalf of Attorney General

Linley Pearson. Several bills seeking to limit the availability of abortions were introduced; however, none of them passed. HB 1430 would have allowed chiropractors to treat injured workers under the worker's compensation

AIDS legislation sought by the ISMA also failed to become law. SB 260 would have clarified Indiana law as to when a physician could test a patient for AIDS without the patient's informed consent. It would have allowed a patient to be tested without informed consent if the physician needed the test to diagnose or treat the patient. The bill also would have required the state board of health to conduct case finding activities when it was notified under the "duty to warn" statute. SB 260 was strongly opposed by the Indiana Civil Liberties Union. The bill passed the Senate but stalled in the House Public Health Committee.

Several other important bills were considered during this session and are summarized in the 1990 Digest of Health and Medical Laws. This publication is available from the ISMA Government Relations Department.

Once again, the Physician of the Day Program was a success at the Statehouse. I encourage ISMA members to volunteer to participate in this worthwhile program. The visibility given to the ISMA is

invaluable.

I thank all of the physicians who took time to testify before the House and Senate committees on behalf of the ISMA. I also thank the many physicians who served as Key Contacts. It is through the efforts of these physicians that the ISMA continues to be a major player in shaping Indiana health policies.

I especially thank the members of the Commission on Legislation. Their insight and understanding of the issues and political process made my first year as chairman enjoyable.

#### **COMMISSION ON MEDICAL EDUCATION** James E. Carter, M.D., chairman

The Commission on Medical Education and its Subcommission on Accreditation each met Nov. 19, 1989, and April 22, 1990. Stephen Jay, M.D., served as chairman, and Donald Dian, M.D., served as vice chairman of the Subcommission on Accreditation. Glenn Bingle, M.D., served as chairman of the Subcommission on Physician Remedial Education.

Seven Indiana institutions were site visited and accredited this year. One organization had its accreditation deferred.

The Subcommission on Accreditation submitted an interim report to the Committee for Review and Recognition (CRR) of the ACCME. The CRR recommended that standard accreditation for institutions and organizations be set at four years. The previous standard accreditation was six years for institutions and two years for organizations. The CRR also recommended that organizations and institutions be surveyed in the same manner.

Previously, organizations were surveyed by a reverse-site process. Now, the initial accreditation will be an on-site survey. Reaccreditations will be done with a reverse-site process for organizations and on-site survey for institutions. The accreditation for organizations and institutions after the initial two-year provisional accreditation will be four

years. These requirements by the ACCME will necessitate more site surveys each year. The commission will discuss other accreditation schedules with the ACCME.

The Subcommission on Accreditation has requested that all accredited institutions and organizations submit annual reports. These reports will indicate the significant changes in the medical education programs of institutions and organizations.

The Subcommission on Physician Remedial Education met in January. At that time, no new cases had been referred from Sentinel. Future plans were dis-

cussed.

The Commission on Medical Education has received reports regarding undergraduate medical education and graduate medical education in Indiana. The Indiana University School of Medicine, at the Northwest Center, will initiate a new program with an emphasis in problem-based learning for the first and second curricular years. The creative leadership of Panayotis Iatridis, M.D., has facilitated this program development.

In 1991, a family practice clerkship will be started during the third year of medical school. Eleven percent of the graduates of the Indiana University School of Medicine Class of 1990 selected family practice residency programs, a decrease from previous years. The average indebtedness for 1989 Indiana graduates was \$30,000, versus \$42,000 nationally.

Legislative efforts to restore \$1.3 million in medical education grants for graduate medical education in Indiana were unsuccessful. The commission will continue to seek support for restoration of this money

The Steering Committee for the commission discussed practice parameters that are being developed nationally. This matter will be discussed further.

I thank the members of the Subcommission on Accreditation and the Commission on Medical Education. Their dedication and efforts in the accreditation process are invaluable. I also thank the ISMA staff for administrative support.

#### **COMMISSION ON** PHYSICIAN ASSISTANCE Dolores M. Burant, M.D., chairman

During the year, the Commission on Physician Assistance focused on five main tasks. They include:

1) To provide services to those who ask. Kete Cockrell, M.D., medical director of the Physician Assistance Program has continued to respond to calls from families, medical societies, hospital staffs and physicians. From Sept. 1 to March 7, he provided services to 60 new cases. Fiftyone of these cases included problems with alcohol, drugs or both. Of these, 26 have completed treatment and returned to practice. The others, at the time of this report, were still in treatment or discovery. Those statistics are not available after March 7. Dr. Cockrell continues to receive regular requests for service.

The commission members and the medical director have spoken to those who request it. Dr. and Mrs. McFadden of North Manchester gave a presentation to the ISMA Auxiliary at its state meeting at the Amish Acres in Nappanee April 26 through 28. That meeting generated a message - don't forget the spouses. "Let us remember that ... 1) they are part

of the medical family, and this is a family disease; 2) they are a very important part of the intervention team; 3) they also have the disease of alcoholism/codependency; and 4) they have a lot of interest ... and pain."

2) To define the commission's role in directing the program. During the past year, the executive committee of the commission has met almost every month at Dukes Hospital in Peru, Ind. The committee functioned as a sounding board for Dr. Cockrell, with respect to individual cases. It also developed issues to be considered by the commission.

The commission agreed that district representatives could be best used in the following ways: a) to oversee and revise the program, as necessary; b) to set policy and oversee this policy; c) to act as public relations liaisons to local medical societies; d) to act as resources to hospitals and their staffs; e) to act as resources to the ISMA-COPA staff in assisting with interventions and monitoring, speaking at meetings and providing referrals; f) to coordinate the ISMA's program with other states' programs; and g) to act as advocates for physicians in the assistance program at the local and state levels.

3) To obtain adequate funding to support the Physician Assistance Program. After much work by the commission and others in the ISMA, the board of trustees' executive committee authorized the following: a) funding for the commission, as submitted in its proposed budget, from \$104,500 to \$112,500; and b) a task force consisting of ISMA board members to be established to explore possible long-term funding options available for the Physician Assistance Program.

The board also authorized a request for voluntary contributions to the program from individual ISMA members and the chiefs of staff and CEOs of all Indiana hospitals. A most welcome report at our June 6 commission meeting stated that \$26,090 had been received.

4) To obtain adequate staffing to maintain the Physician Assistance Program. With available funding, the commission obtained increased services from Dr. Cockrell and hired Candace Backer, M.S., an addictions and mental health counselor, to assist him. Ms. Backer started July 30.

5) To promote cooperation with other state physician assistance programs. A Federation of State Physician Health Programs has been initiated during the past year. This organization was developed because of the withdrawal of the previous level of AMA support for state programs. The federation's purpose is to improve the quality of care given to physicians in need of help by sharing information. They have been active in efforts to obtain increased help from the AMA, have worked to cooperate with neighboring states and have shared information on developing techniques. The commission voted to allocate money for ISMA membership in the federation.

The past year was busy. As a result of hard work by commission members, we increased funding and staffing, provided services despite shortages and developed bridges with other states' programs.

COMMISSION ON SPORTS MEDICINE Ronald G. Blankenbaker, M.D., chairman

The Commission on Sports Medicine encourages good health and physical fitness through safe, effective sports activities in school and recreational and amateur athletic programs. During the year, the commission met bimonthly and addressed several important issues.

Considerable time was spent reviewing literature on appropriate nutrition principles that should be recommended to recreational and amateur athletes. Many myths and misconceptions exist in this area, requiring better education and awareness. Consequently, the commission is creating a poster, similar to the poster on the dangers of anabolic steroid use, to be disseminated to Indiana schools. The poster will be titled "Play It Smart with Good Nutrition" and will present a questionand-answer format in a simple and easy-to-understand manner. In addition, a brochure or series of brochures will contain more detailed information on the following topics: pre- and postgame meals, regular diet, dietary supplements, fluid intake and weight loss/gain.

The commission is promoting the prevention of sports-related eye injuries with the Indiana Academy of Ophthalmology, the Indiana Society to Prevent Blindness and the Indiana Governor's Council on Physical Fitness and Sports Medicine. We are encouraging racquet sports facilities in Indiana to require participants to use lensed eyewear designed for racquet sports. A letter and poster was sent to each racquet-ball facility in Indiana. Similar

actions will be taken for other sports.

We have strengthened our relationship with the Indiana Governor's Council on Physical Fitness and Sports Medicine by sending representatives to each other's meetings. We also are working with the council on projects to encourage physical fitness among children and youth and to create better use and interaction between medicine and physical fitness programs.

The commission has assisted Randall Morgan, M.D., in his attempt to organize sports medicine symposia throughout Indiana. A June symposium was held in Merrillville for specialties dealing with pediatric athletes. Symposia will be held in other parts of the state as needed.

Throughout the year, the commission discussed other topics including: sports physical exams; shortage and maldistribution of athletic trainers; enforcement of the law banning the use of anabolic steroids; drug testing in athletics; and boxing and football injuries.

I thank the commission members and members of the Professional and Technical Advisory Committee for their time and commitment to these important endeavors.

## GRIEVANCE COMMITTEE Richard B. Schnute, M.D., chairman

Throughout the year, the Grievance Committee investigated and worked to resolve complaints brought by patients against physicians. Most of the problems resulted from a lack of good patient communication. However, several physician complaints against

physicians were related to billing practice or practice style.

Two in-depth discussions developed in response to complaints. The discussions included the committee members' thoughts

on ethical conduct of a second opinion and the rights and propriety of physician encouragement of a patient letter writing campaign concerning dissatisfaction with insurance plan coverage. As chairman, I thank the committee members, especially Max Hoffman, M.D., John Pless, M.D., and Anthony Pizzo, M.D., whose active participation helped resolve most problems.  $\square$ 

## resolutions

### Status of 1989 resolutions

**RESOLUTION 89-1** 

Reduction in Blood Alcohol Levels in Definition of

**Driving Drunk** 

Introduced by: Referred to: Status:

Third District Medical Society ISMA Legislative Department Legislation was introduced. It passed the Senate and died in the House Judiciary Committee. An interim study committee will consider the

issue during the summer. **RESOLUTION 89-2** 

Alternate Trustee Privilege to Speak on the Floor of the House of Delegates

Introduced by:

Status:

Status:

Status:

Commission on Constitution

and Bylaws

Referred to: Commission on Constitution

and Bylaws **Implemented** 

**RESOLUTION 89-3** 

Medical Student Representatives on the Board of Trustees (Amendment to Constitution. Article VII)

Introduced by: Commission on Constitution

and Bylaws

Commission on Constitution Referred to:

> and Bylaws **Implemented**

**RESOLUTION 89-4** 

Opposition to Mandatory Coding

Introduced by:

Clark County and Third Dis-

Media Key Contact Person

Referred to:

ISMA Legal Counsel Monitored by AMA and

**ISMA** 

**RESOLUTION 89-5A** 

Introduced by:

Ninth District, Timothy N. Brown, M.D., president Referred to: ISMA Communications Department

Status:

Fourteen physicians have volunteered to serve as me-

dia doctors.

**RESOLUTION 89-6A** Introduced by:

Label on Prescription Drugs Richard A. Schaphorst, M.D., and supported by St. Joseph County Medical Society

Referred to:

ISMA Legislative Department Status: Legislation was introduced but died in the House Public

Health Committee.

**RESOLUTION 89-7A** 

Program Funding for the Commission on Physician **Assistance** 

Introduced by: Commission on Physician

Assistance Referred to: ISMA Financial Department

and ISMA President for Task

Force Appointments Board approved increased Status:

1990 funding for COPA. Task Force appointments were made and will meet to find additional sources of income for COPA. Voluntary contribution letters were sent to hospitals and ISMA members and have received excellent response and income.

**RESOLUTION 89-8** 

Auxiliary Representation on County and State Governing **Boards** 

Introduced by: Referred to: Status:

Fort Wayne Medical Society ISMA Auxiliary Coordinator Letters were sent to all county medical societies encouraging auxiliary representation on their boards.

**RESOLUTION 89-10** 

Changes to the ISMA-HMSS Model Medical Staff Bylaws ISMA Hospital Medical Staff Introduced by:

Section

Referred to: ISMA Hospital Medical Staff

Section Status: **Implemented** 

**RESOLUTION 89-13** 

Additional Funding for Graduate Medical Education Commission on Medical Edu-Introduced by:

Referred to: Status:

ISMA Legislative Department Legislation was introduced but died on third reading in the House of Representatives.

## resolutions

**RESOLUTION 89-14** 

Introduced by:

Referred to:

Status:

**RESOLUTION 89-15** 

Introduced by: Referred to:

Status:

**RESOLUTION 89-17** 

Introduced by:

Referred to:

Status:

**RESOLUTION 89-18** 

Introduced by:

Referred to:

Status:

**RESOLUTION 89-19** 

Introduced by:

Referred to:

Status:

Introduced by:

Referred to:

Status:

ISMA Strategic Plan

C. Dyke Egnatz, M.D., speaker of the House **Board of Trustees** 

The strategic plan continues to be phased in during 1990.

**State Delegate Position** Medical Student Society Commission on Constitution

and Bylaws Implemented

Medicare Response Guidelines

Tim N. Brown, M.D., president, Montgomery County

Medical Society ISMA Legal Counsel and Legislative Department

Being handled by staff on a case-by-case basis

Drug-free Indiana

Fred Dahling, M.D., New

Haven

ISMA Legislative and Communications departments When asked, ISMA will lend support and expertise.

Medical Career Develop-

ment Programs

George H. Rawls, M.D., Indianapolis

ISMA Member Services De-

partment

Statewide meetings have been held with the Medical Explorers and physicians interested in assisting with

this program.

**RESOLUTION 89-20A** Infant Mortality Prevention George H. Rawls, M.D., In-

dianapolis

ISMA Legislative and Communications departments Legislation was passed, in-

creasing Medicaid eligibility to 133% of the poverty level for pregnant women and for children up to age six. This is a federal requirement.

**RESOLUTION 89-21** 

Introduced by:

Referred to:

Status:

Indiana Summit on Cost and Quality of Care

George H. Rawls, M.D., In-

dianapolis

ISMA Legislative and Communications departments

Held Sept. 26 from 9:00 a.m.

to 2:00 p.m.

**RESOLUTION 89-22** 

Introduced by:

Referred to:

Status:

Causes of Action Against Medical Licenses

George Rawls, M.D., India-

napolis

ISMA Legal Counsel and

INDIANA MEDICINE

Article published in August

issue of INDIANA MEDICINE

**RESOLUTION 89-23** 

Introduced by:

Referred to:

Status:

Physician Volunteer Care for **Indigent Patients** 

George H. Rawls, M.D., In-

dianapolis

**Board of Trustees** 

Survey results tabulated and

presented at Health Care

Summit

**RESOLUTION 89-24** 

Introduced by:

Referred to:

Status:

Care for Indigent Senior **Patients** 

George H. Rawls, M.D., In-

dianapolis

ISMA Legal Counsel and Communications Department

Editorial printed by George Rawls, M.D., in June issue of

INDIANA MEDICINE

**RESOLUTION 89-25** 

Introduced by:

Referred to: Status:

Basic Health Insurance for Uninsured

George H. Rawls, M.D., In-

dianapolis

ISMA Legislative Department Federal law prohibits increasing Medicaid eligibility to this level. Legislation establishing a "medically needy" component for Indiana's Medicaid program is being considered for the 1991 ses-

## resolutions

sion.

**RESOLUTION 89-27** 

ISMA Past President's

Council

Introduced by:

George H. Rawls, M.D., In-

dianapolis

Referred to:

ISMA Communications De-

partment

Status:

Meeting to be held in con-

junction with ISMA conven-

**RESOLUTION 89-28A** School Health Clinics Introduced by:

George H. Rawls, M.D., In-

dianapolis

Referred to:

Commission on Medical Ser-

vices

Status:

Letters sent to State Depart-

ment of Education, State Board of Health, Indiana State Teacher's Association

and the Indiana School Board Association offering the Commission on Medical Services' expertise and resources to

schools for development and interpretation of health poli-

cies and curricula.

**RESOLUTION 89-29** 

Introduced by:

Internal Physician Network

Referred to:

Status:

George H. Rawls, M.D., In-

dianapolis

ISMA Legislative Department An action plan for enhancing the Legislative Key Contact

Program to include "peer-topeer"contacts has been estab-

lished.

RESOLUTION 89-30A Medical Staff Self-

Governance

Introduced by:

Fort Wayne Medical Society

Referred to: ISMA Legal Counsel and Finance Department

**Implemented** 

Status:

Standardized Attending

Physician Statement for

Disability

Introduced by:

**RESOLUTION 89-35** 

Marion County Medical Soci-

Referred to:

ISMA Legal Counsel and

Status:

Communications Department

Working with Indiana

Manufacturer's Association to

obtain approval by Indiana

employers.

**RESOLUTION 89-42** 

Introduced by:

Referred to:

Status:

Testing for Human

Immunodeficiency Virus Fort Wayne Medical Society

ISMA Legislative Department Legislation was introduced.

It passed in the Senate but died in the House Public

Health Committee.

**RESOLUTION 89-44** 

Introduced by:

Referred to:

Status:

Resident Work Hours

Marc Duerden, M.D., Resi-

dent Medical Society

ISMA Legislative Department No legislation limiting the

maximum number of hours worked by residents was introduced during the 1990

Corporal Punishment in

legislative session.

**Public Schools** 

**RESOLUTION 89-45** 

Introduced by:

Philip F. Merk, M.D., India-

napolis

Referred to: ISMA Public Policy Manual

for Inclusion

Added to Public Policy

Manual

**RESOLUTION 89-48** 

Hospital Medical Staff Elections

Lake County Medical Society

Introduced by:

Referred to:

Status:

Status:

ISMA Communications De-

partment

Article printed in February

1990 ISMA Reports

**RESOLUTION 89-49** 

Introduced by:

Referred to:

Status:

Proposed Medicare Legislation

Lake County Medical Society

ISMA Legislative and Communications departments

Federal legislation establishing "expenditure targets" was

defeated. Action plan and budget development is under

way.

## ■ resolutions

"Unreasonable and Unneces-

**RESOLUTION 89-50** 

Introduced by: Referred to:

Status:

**RESOLUTION 89-51** 

Introduced by:

Status:

**RESOLUTION 89-52** 

Introduced by:

Referred to: Status:

Referred to:

Medicare meetings Billing for Multiple

Medical Society

**Board of Trustees** 

**Procedures** Bartholomew-Brown County

**Medicare Appropriations** 

ISMA Legal Counsel

Reimbursement for

**Implemented** 

Treatment

Lake County Medical Society

Bartholomew-Brown County

Monitored through monthly

Medical Society ISMA Legal Counsel

Monitored through monthly

Medicare meetings

**RESOLUTION 89-53** 

sary" Terminology for

Services

Introduced by: Bartholomew-Brown County

Medical Society

Referred to: ISMA Legal Counsel Status:

Requires change in federal Medicare law. AMA continues to try to accomplish this

change.

**RESOLUTION 89-54** 

Introduced by: Referred to:

Status:

Medicaid Resources

Lake County Medical Society ISMA President for Ad Hoc Committee Appointments August board retreat addressed the issue of managed

care with speakers from Or-

egon and Kentucky.

## HCFA administrator \_answers questions\_

INDIANA MEDICINE recently submitted written questions about Medicare issues to Gail R. Wilensky, administrator of the Health Care Financing Administration. Here are those questions and her answers.

Q. You state one of your top priorities as a new HCFA administrator is to make Medicare more clearly understandable by the patient and physician community. Do you have any action plans that you will begin implementing to accomplish this necessary education?

A. We have formed a Beneficiary Education Advisory Committee and a Beneficiary Education Workgroup to improve the consistency, clarity and effectiveness of beneficiary communications. To this end, the workgroup will coordinate the various HCFA components' activities regarding communications by stressing the need to develop a comprehensive and coordinated approach. The workgroup will also undertake a systematic review of current Medicare/Medicaid beneficiary information and assess whether it clearly presents its intended mes-

Additionally, we are developing a beneficiary manual primarily for use by people directly involved in helping beneficiaries with their questions about the Medicare program.

Q. We have learned that the Health Care Financing Administration (HCFA) is revising the Explanation of Medicare Benefit (EOMB) Worksheets. Is this revision being done to assist the pa-

tient and physician in understanding the messages being communicated to them?

A. HCFA has begun work to review the format of the EOMB for possible improvements. We are concentrating initially on the elements of information and the display of information. The goal is to make the notice easier to understand and more conducive to complementary claims processing. A major part of this effort will involve the use of beneficiary focus groups to assess the readability of the redesigned form.

Q. The language currently used on the EOMB worksheet causes a lot of patient/physician relationship conflicts. Is the language stating that services were not "reasonable and necessary" under revision or reconsideration for the new EOMB?

A. The Omnibus Budget Reconciliation Act of 1986 requires HCFA to send an EOMB message referencing Section 1862(a) (1) of the Social Security Act in this situation. That section of the act discusses whether a service is reasonable and necessary. We have tried to clarify the reason for the denial but are constrained by statute in the use of language. Although not a direct part of the EOMB redesign effort, we are working to clarify both physician and beneficiary understanding of this provision of the law.

Q. We have learned that the peer review organizations and the Medicare carriers are working under two separate branches of HCFA and that information does not always reach both entities at

the same time. Are there any plans to form a closer relationship within these two HCFA branches for faster and more efficient communication? If so, what are the plans? If not, is this an issue which HCFA would be willing to consider?

A. The administration of both the peer review organizations (PROs) and Medicare carrier contracts is under the jurisdiction of HCFA's associate administrator for operations. HCFA has made a priority of enhancing PRO/carrier communications. In June, the first national meeting of PRO and carrier representatives was held, beginning a process of problem identification and resolution. HCFA is working on improved coordination between PROs and carriers in many areas, including prior authorization of procedures, the exchange of adjustment data and the coordination of coverage determinations.

**Q.** The Indiana State Medical Association generates several publications that assist the physicians in understanding issues of concern. What kind of educational programs and literature would you like to see the state medical societies and other organizations provide?

A. Any information that affects the physician/beneficiary relationship would be worthwhile. For example, the new law that went into effect in September regarding physician submission of all Medicare claims would be of interest to all beneficiaries. Any major program or coverage changes also would be of interest to the public. An example would

be an explanation of the automatic transfer of claims to supplemental policy payers.

Q. As you are aware, the 1991 Medicare Volume Performance Standard (MVPS) has been set at 9.1%. The current percentage of growth in Indiana is approximately 12%. We are very concerned that the growth nationally may be higher than the growth in Indiana. What is being done to monitor the MVPS, and how can we as a concerned state association assist in keeping Congress from reducing the following year's allowances based on the percentage of increase of the patient or service population?

**A.** The fiscal year (FY) 1990 MVPS rate of increase for physicians' services is 9.1%. The FY 1991 rate has not yet been set. However, the Secretary of Health and Human Services has recommended to Congress rates for FY 1991 of 8.7% for surgery, 10.5% for non-surgery and 9.9% for all services. These recommendations allow for a growth rate of 3.7% above that driven by inflation, increases in and aging of the beneficiary population and legislation. The law requires that the FY 1990 and 1991 MVPS rates be a national standard.

The law also requires that a study be done on the feasibility of establishing separate MVPS rates on a geographic, specialty or type of service basis. Once the study is completed, the Secretary of HHS is required to set criteria and may allow such separate rates beginning with FY 1992. We are monitoring compliance with the FY 1990 MVPS rate from our payment records and will report to Congress quarterly as required by law.

I might add that payment levels cannot be reduced because of the MVPS. Rather, the amount of the annual increase in physicians' fees that occurs every year may be reduced. Unless Congress acts and sets the update factor, the law even limits the amount of reduction in the annual increase that the Secretary of HHS may implement to 2% for 1992 and 1993.

Q. As you are aware, the model fee schedule for the Resource Based Relative Value Scale (RBRVS) was due Sept. 1, 1990. What kind of progress is being made on the RBRVS? What kind of control does HCFA have in making sure that this model fee schedule will be available by September 1990?

A. Results from Phase II of Harvard's RBRVS project are due to HCFA Dec. 31, 1990. Hence, the Model Fee Schedule that HCFA was to distribute in September will contain values only from the Phase I Harvard work, which encompassed about 1,400 CPT codes, accounting for about 65% of Medicare physician payments.

The later RBRVS results from Harvard are expected to provide values for some 4,000 CPT codes, covering about 95% of Medicare physician payments. These will be published in April 1991 as part of the Notice of Proposed Rulemaking.

Values for the remaining 3,000 codes, accounting for the remaining 5% of Medicare physician payments, have been requested from Harvard by June 1991. If these values are not received by the time they are needed for the Final Rule, HCFA will use values estimated from relative charge

data analyses.

Our overall goal is for the carriers to be able to provide 1992 Medicare Fee Schedules to physicians in November 1991 during the enrollment of participating physicians.

HCFA is allocating all necessary and appropriate resources across many components of the agency to ensure that the model fee schedule was completed and available by Sept. 30, 1990. Completion of the model fee schedule was a high priority, and we are on schedule to ensure that this deadline will be met.

Q. The participation agreements concern our members. In Indiana this year there were multiple mistakes on the reports that physicians received on what to base the participation/non-participation decision. Due to the discrepancies and lack of time, physicians were unable to make informed decisions. Indiana requested an extension to give the physicians more than seven days to make this important business decision. How do you feel about allowing the physicians ample time to make a decision of this nature? Do you feel that physicians should be given the same consideration that other business people are given?

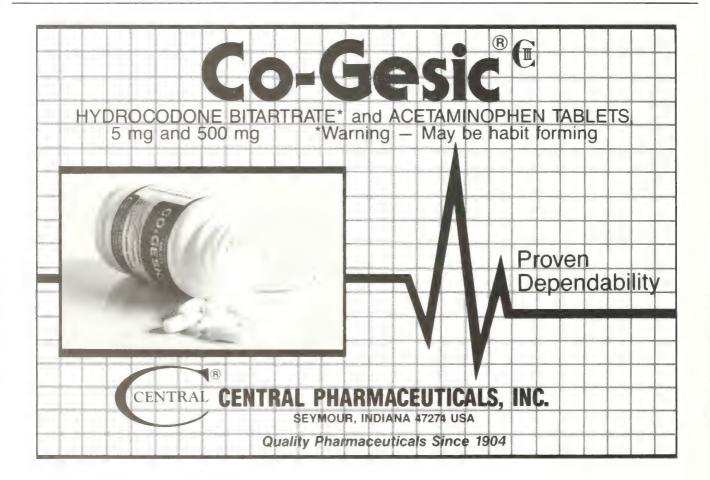
A. This year, as in past enrollment periods, HCFA required Medicare carriers to release updated customary charges, prevailing charges and Maximum Allowable Actual Charges (MAACs) to each physician for those services he or she customarily performs. Indiana Blue Shield released virtually all of the required data to all physicians Feb. 28, 1990. Some MAACs, however, were omitted for some physicians; these

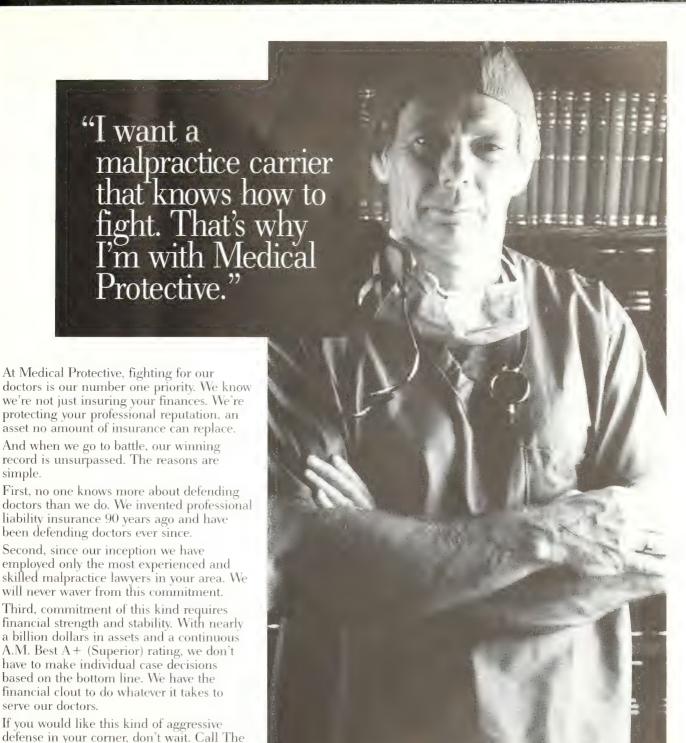
MAACs were released March 7, 1990. Indiana Blue Shield's release of this information was within the deadline established for this enrollment period by HCFA.

The Omnibus Budget Reconciliation Act of 1989 mandated the

April 1, 1990, date as the beginning of the Medicare participation period. Since physicians in Indiana had the amount of time usually allowed to make a participation decision, we do not believe an extension to the participation enrollment period was warranted.

Indiana Blue Shield followed our usual policy of allowing a seven-day grace period after April 1, before receiving postmarks to determine whether participation elections are filed timely.





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# Sentinel director explains review process

Editor's note: Wayne Crockett, M.D., medical director of Sentinel, provided the following article to ISMA to give physicians a better understanding of the state's medical review organization. The November issue of INDIANA MEDICINE will contain an article explaining the role of physician advisers in the review process.

Sentinel Medical Review Organization was awarded the three-year medical peer review contracts for Indiana and Kentucky, effective Nov. 1, 1988.

Peer review organizations (PROs) review the services provided to Medicare beneficiaries by hospitals, hospital outpatient departments, skilled nursing facilities, home health agencies, ambulatory surgery centers and health maintenance organizations. PROs also review the inpatient services provided to CHAMPUS dependents and retirees. The purpose of the medical review process is to ensure the necessity and appropriateness of services for which payment may be made under the Medicare or CHAMPUS pro-

Most cases are selected for retrospective review from data tapes provided by the Medicare and CHAMPUS Fiscal Intermediaries (FI) and the Medicare carrier. The tapes contain all claims paid during a specified period of time by an FI or carrier. Additional cases are selected from data provided by the Health Care Financing Administration.

Since implementation of the contract in 1988, Sentinel has received 485,741 records; of these,

99,597, or 20%, have been selected for retrospective review. Retrospective review is the evaluation of the care after it has been provided to the beneficiaries.

The first step in the review process is the application of screening criteria by nurse reviewers. Most cases are reviewed onsite at the hospital. Nurses are not permitted to deny payment but may approve any case that meets all review criteria.

If a case fails to meet the review criteria, it is referred for further review by a physician adviser. Physician advisers do not use review criteria; instead they rely on medical knowledge

If a case fails
to meet the review
criteria, it is referred
for further review
by a physician
adviser.

and judgment to determine if care was necessary and provided in the appropriate setting and if the patient received services at an acceptable standard of quality of care

If the physician adviser determines that some questions still need to be answered, a letter is issued to the responsible party - the physician, the facility or both. The initial notice will identify the potential problem, such as utilization, diagnosis-related group (DRG) or quality, and list a deadline for responding.

The physician, or when appropriate the facility, is given an opportunity to provide additional information to assist a second PRO physician in determining if a confirmed problem exists. The response by the responsible party may be provided by telephone or in writing. If no response is received, the initial finding of a potential problem may be confirmed. It is important, therefore, that the responsible party submit additional information in response to the initial inquiry. (Confirmed utilization or DRG problems that affect Medicare payment are subject to reconsideration upon request.)

Through July 1990, only a small percentage of all retrospective cases were subject to physician review. Of the 78,246 cases that have been reviewed, 53,793, or 69%, were approved after nurse review. Of the 24,453 cases referred for physician adviser review, 18,614, or 76%, were completed without further contact with the attending physician. The level of resolution of nurse referrals by a physician adviser highlights the importance of physician judgment in the review process.

A total of 5,839 cases, or 24%, were subject to further review and a request for response and additional information from the responsible party. Physicians usually do respond to such inquiries, and the responses often help resolve the identified problems.

Factors that may contribute to the need for a response by the physician include the following:

1. Failure of the attending physician or others to carefully and adequately document the

condition and care of the patient. Problems include the absence of notation of an abnormal lab value; failure to note or document findings that exist elsewhere, such as an office record or the patient's record in another facility; and elements of information within the record that seem to be in conflict, either with other information or with the chosen course of treatment.

2. The provision of inadequate or unnecessary care.

3. An unintended oversight of information that was present in the record at the time of review.

Oversights can occur; it is difficult to review a photocopy of a medical record, particularly when the reviewer is not familiar with the format and organization of the record. This factor is not considered a frequent occurrence, but Sentinel is constantly striving to reduce the incidence of such oversights.

4. The absence of a physician adviser of the appropriate specialty on the first round of review. Although PROs are required to match specialties only on reconsiderations, Sentinel believes that review is improved by matching

at the earliest possible point in the process. Unfortunately, the absence of an adequate supply of physician advisers in some specialties may result in further (avoidable) review.

Sentinel is an organization of physicians. It wants to provide good service to physicians, hospitals and other providers while addressing the needs of patients, taxpayers and the federal government. Comments and constructive criticism are welcome from those with ideas that may promote progress toward these objectives.

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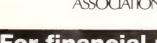
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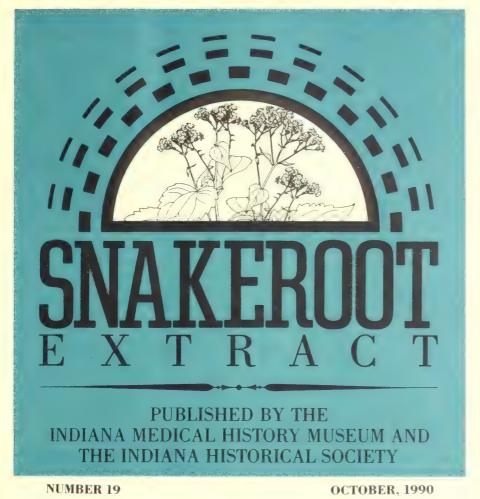


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# SOCIETY SPONSORS SESSIONS ON GERMAN INFLUENCE ON AMERICAN MEDICINE

The German influence on American medicine and health care will be the topic of morning and afternoon sessions at the Indiana Historical Society's Annual History Conference to be held on Saturday, November 3. 1990, at the Omni Severin Hotel in downtown Indianapolis. The Indiana Historical Society's Medical History Committee, Indiana German Heritage Society, and the Indiana Medical History Museum are cooperating to present these sessions. The keynote speaker for the sessions will be Robert J. Frank, Jr., Ph.D., from the University of California at Los Angeles (UCLA). In his paper, "Midwestern Doctors in Germany and Back Home, 1860-1910," Frank will discuss the role German-trained physicians played in reorganizing and upgrading American medicine and medical education.

During the first half of the nineteenth century, France was the (continued on Page 3)

#### MUSEUM HOLDS ANNUAL MEETING

The annual meeting for the Indiana Medical History Museum will be held at 1:30 p.m. on Sunday, October 14, 1990, at the museum. Following the business meeting, John S. Cornell, Ph.D., assistant professor of European history at Butler University, will deliver a lecture entitled, "Psychiatry and the Cure of Souls: German Psychology and Religion Around 1900." Cornell holds a doctoral degree in history from Yale University. His dissertation focused on the history of late-nineteenth-century German psychology and religion. He has received a number of awards and grants for his research.

During much of the nineteenth century, a spiritual or religious view of mental illness predominated. During the late nineteenth century, psychiatrists grudgingly abandoned this view and replaced it with a humane and secular view of mental illness. Nonetheless, spiritualism still thrived in mental asylums, and German psychiatrists developed a program of "spiritual hygiene" at their institutions at the same time that physicians were trying to find a physiological basis for mental illness.

The lecture is made possible by an Indiana Heritage Research Grant from

(continued on Page 4)

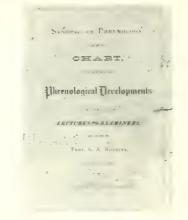


This microscopical laboratory at the Medical College of Indiana, in Indianapolis, ca. 1898, was patterned after German laboratories. Photograph reproduced courtesy Indiana Historical Society Library (negative no. C4662).

#### SOCIETY RECEIVES PHRENOLOGY BOOK

Phrenology, or the "science of the mind," flourished in the United States during the nineteenth century. Phrenologists believed that the brain, or organ of the mind, consisted of thirty-seven different faculties (or human characteristics such as benevolence, secretiveness, and selfesteem). An enlargement, or bump on the skull above the area of the brain responsible for that faculty, implied that an individual possessed that trait. Phrenology had a strong hold upon Hoosiers in the 1830s and 1840s and remained popular until the late nineteenth century. Phrenologists produced a number of books and pamphlets describing the "science." H. E. Rendel, M.D., of Peru, Indiana, recently donated one of these pamphlets to the Indiana Historical Society Library. Entitled Synopsis of Phrenology and Chart Describing the Phrenological Developments for the Use of Lectures and Examiners, the pamphlet is of particular interest because it was published in La Porte, Indiana, in 1877, and was written by an S. A. Robbins of Walkerton.

In the late seventeenth century, Austrian physician Franz Joseph Gall (1758-1828) developed the theory underlying phrenology. After years of experimentation and observation, Gall theorized that anatomical and physiological characteristics influenced behavior. He began



Title page from a phrenology book recently donated to the Indiana Historical Society Library. Photograph courtesy Indiana Historical Society Library (negative no. C4660).

lecturing on his findings. In 1802, the Austrian government declared Gall's teachings subversive to religion and morals. Gall left Austria to lecture on phrenology. He later established a medical practice in Paris, where he remained until his death.

Johann Gaspar Spurzheim (1776-1832), a student of Gall who eventually became estranged from his mentor, carried the torch for this new science after Gall's death. Spurzheim popularized phrenology in Great Britain and America and coined the term "science of the mind."

Initially, negative reactions greeted phrenology in Great Britain. In 1815, the editor of the *Edinburgh Review* noted: "Such is the trash, the despicable trumpery, which two men [Gall and Spurzheim], calling themselves scientific inquirers, have the impudence gravely to present to the physiologists of the nineteenth

century, as specimens of reasoning and induction." In Edinburgh, however, Spurzheim met George Combe, a young barrister so impressed with the new science that he started a phrenological society. Because of Combe's persuasiveness, many members of the medical profession changed their minds about phrenology.

Americans did not warm up to this new science until Spurzheim toured the United States in 1832. Philadelphia banker Nicholas Biddle was the first prominent American to become interested in the subject; other leading citizens (including a number of well-known physicians) soon espoused phrenological principles. During the 1832 lecture circuit, Spurzheim became ill and died while in Boston. His death drew much attention to phrenology.

In Britain, phrenology remained the domain of the upper and intellectual classes. Americans, however, quickly popularized the science and pioneered the concept of the "practical phrenologist." This new breed of phrenologist gave individual character readings that assessed a person's traits, including his or her virtues and vices, potential, and limitations. The practical phrenologist also provided vocational guidance and marriage counseling.

Practical phrenology first appeared at Amherst College in 1833 where American theologian Henry Ward Beecher and his classmate, Orson Squire Fowler, lectured on the subject. Fowler charged two cents per student for personal readings. Beecher went on to study theology and become a famous minister; Fowler pursued phrenology as a career. He convinced his younger brother, Lorenzo Niles Fowler, to join him. Together they lectured in upstate New York, the seedbed for a number of intellectual and religious movements. They urged others (including women) to join them on the lecture circuit. During the 1830s and 1840s, phrenologists visited almost every town and village in the United States. In their lectures, phrenologists, or "bumpologists," performed a few public phrenological

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Snakeroot Extract is a joint publication of the Indiana Historical Society's Medical History Committee (315 West Ohio Street, Indianapolis, Indiana 46202) and the Indiana Medical History Museum (Old Pathology Building, 3000 West Washington Street, Indianapolis, Indiana 46222). The newsletter is mailed to members of both the committee and the museum.

Submit all items for publication in the newsletter and inquiries about membership information to Katherine Mandusic McDonell, Managing Editor, c/o Indiana Historical Society, 315 West Ohio Street, Indianapolis, Indiana 46202.

Snakeroot Extract derives its name from the white snakeroot, a plant that is significant in Indiana medical history. For years, a mysterious disease called milk sickness plagued early Hoosiers. There were many theories as to the disease's cause, but the actual cause remained unknown until the 1920s. At that time, the disease was traced to the white snakeroot plant or, rather, to the consumption of milk from cows that had eaten it. The plant contains the poison tremetol.

#### SOCIETY SPONSORS SESSIONS

(continued from Page 1)

medical mecca of the western world. After 1840, Germany came to assume this role. From 1840 to 1870, German physicians made a number of important medical discoveries. The German approach to medicine focused on experimental methods, and German scientists relied on laboratory methods to uncover the causes of disease and the mysteries of the human body. Between the 1860s and 1910, more than fifteen thousand American doctors studied medicine in the German-speaking countries of Germany, Austria-Hungary, and Switzerland. They returned to the United States and reorganized many aspects of American medicine.

Frank is associate professor of the history of medicine and history and chief of the medical history division at UCLA. He received his bachelor's degree from Stanford University, his master's degree from Harvard University, and his doctoral degree in the history of science from Oxford University. Frank has written a number of articles and a book. Harvey and the Oxford Physiologists: A Study of Scientific Ideas and Social Interaction (UCLA Press, 1981). He translated that book into Italian, and it was published in Bologna in 1983. In 1983, the American Association for the History of Medicine recognized Frank's contributions of outstanding scholarly merit to the field by awarding him its highest honor, the William Henry Welch Medal. Among his numerous other awards. Frank received the Fulbright Senior Professor Award for 1988-89.

The morning session will also include two papers which show other aspects of the German influence on American medicine and health care. Eberhard Reichmann, Ph.D., professor of Germanic Studies at Indiana University at Bloomington, will discuss "Hoosier German Folk Medicine." When Germans immigrated to this country they brought with them their home remedies. These remedies eventually became part of the Hoosier home

remedy tradition. Reichmann will discuss the origins of German folk medicine and the transfer of these remedies to America. Reichmann is the author of various books and editor of a number of German textbooks. He recently revised G. Probst's The Germans in Indianapolis, 1840-1918. Reichmann is cofounder of the Indiana German Heritage Society, vice president of the Society of German American Studies, and has received a number of awards for his work in Germanic Studies, including the Cross of Merit from the Federal Republic of Germany.

Alida J. Moonen, a doctoral candidate in sport history at Ohio State University, will present a paper entitled, "The Missing Half: The Experience of Women in the Indianapolis Athenaeum Turnverein, 1850-1920." Turnvereins were gymnastic institutions established by German immigrants in the 1840s. The Turnvereins had outings which consisted of picnics, games, and gymnastics. They provided one form of physical fitness in America and were instrumental in the development of physical education as a profession and in securing physical education programming in the schools.

The Annual History Conference will conclude with a 4 p.m. tour of the Indiana Medical History Museum's Old Pathology Building. Constructed in 1895, the Old Pathology Building provided laboratory facilities to study the causes of mental illness systematically and scientifically. This state-of-the-art research laboratory and medical center containing turn-of-the-century anatomy, bacteriology, clinical chemistry, and histology laboratories, reflects the German emphasis on laboratory medicine.

The Society's Annual History Conference begins at 9 a.m. on Saturday, November 3, 1990, at the Omni Severin Hotel in Indianapolis. For more information, contact the Indiana Historical Society, 315 West Ohio Street, Indianapolis, IN 46202 (317/232-1882).

#### MUSEUM WELCOMES NEW VOLUNTEERS

The Indiana Medical History
Museum added four new volunteers to
its staff. Joining the museum staff
were Emily Hopkins, Hazel Navarro,
Sharon McKittrick, and Robert A.
McDougal, M.D. Emily Hopkins
volunteered at the museum for the
summer. She is a sophomore at
Martinsville High School and in the
past has volunteered for her church
and for Central State Hospital. At the
museum, she helped with office work
and filed catalog cards in the
museum's library.

Hazel Navarro, who recently graduated from Indiana University/Purdue University (IUPUI) at Indianapolis, holds a bachelor's degree in English and is working on a degree in history. She volunteered for the Pan Am games in Indianapolis and presently works in the development office at Indiana University School of Medicine. She is helping with tours at the museum and is also assisting with the artifact collection.

Sharon McKittrick, who has a bachelor's degree in anthropology and is completing her master's degree in library science at IUPUI, works as a clerk at the Lawrence Branch of the Indianapolis/Marion County Public Library. She worked previously at Historical Landmarks Foundation and as an intern in the Indiana Division of Historic Preservation. She joined the volunteer staff to assist with cataloging the museum's late-nineteenth-century medical library.

The most recent addition to the volunteer staff is retired pathologist Robert A. McDougal, M.D. McDougal has served as hospital pathologist at Winona, Hendricks Community, and Wishard hospitals. He has also served on a number of boards and committees in Indianapolis including the CIRBC (blood bank), Little Red Door, Indiana State Museum Society (Endowment Committee), and the Blood Center Foundation. He is helping the museum catalog its large artifact collection.

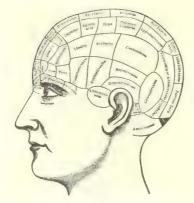
## SOCIETY RECEIVES PHRENOLOGY BOOK

(continued from Page 2)

readings to sell their private consultations.

Despite its popular appeal, not everyone shared in the enthusiasm for phrenology. Many condemned it on the basis that it allegedly confirmed atheism, fatalism, materialism, and the denial of moral responsibility. The editor of the *North American Review* termed it "a quackery which succeeded by boldness."

Phrenology reached its zenith in the 1830s and 1840s and declined slowly after the Civil War. The Fowlers' descendents ran out of enthusiasm and quarreled. In 1843, the London Phrenological Society experienced a disastrous schism. Four years later the Edinburgh *Phrenological Journal* ceased publication. Despite these problems, the *American Phrenological* 



Drawing showing the location of the thirtyseven faculties (or human characteristics) described by phrenologists. Photograph taken from John D. Davis, Phrenology: Fad and Science, A 19th-Century American Crusade (1971). Reproduced courtesy the Indiana Historical Society Library (negative no. C4661).

Journal continued until 1911, and the American Phrenological Institute graduated individuals until the early twentieth century. America refused to abandon this "science of the mind" that served as psychiatrist, psychologist, fortune-teller, and career and marriage counselor to the public.

#### MUSEUM HOLDS MEETING

(continued from Page 1)

the Indiana Humanities Council and the Indiana Historical Society. Funds from the grant have paid for cataloging the museum's large collection of medical and psychiatry texts. Cornell used a similar collection of books in preparing his research on German mental asylums. He will address the usefulness of such a collection in his talk.

Those attending the annual meeting and lecture will also be able to tour the museum and view the museum's late-nineteenth-century medical library. Some of the rarer books will be displayed.

The annual meeting is open to all museum members and the general public. For more information, contact Katherine McDonell, Indiana Medical History Museum, 3000 West Washington Street, Indianapolis, IN 46222. (317) 635-7329.



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# Undocumented phone calls: A liability issue\_

Barbara A. Killila Indianapolis

L elephone conversations between physicians and patients during their treatment have played a major role in medical malpractice cases. While reviewing medical records, we often find a lack of medical documentation regarding phone calls made either to or by the physician. A few case examples follow.

A young mother called her pediatrician at 5 a.m. because her 7 1/2-month-old son was lethargic and had a temperature of 102° for 20 hours. The pediatrician instructed the mother to give the infant Tylenol and encourage flu-

ids. He told her that if the infant's condition did not improve by 8 a.m. to bring the infant to the office because the infant could be suffering from a condition more serious than the flu. The

doctor returned to bed and did not hear from the mother again. The infant was taken to the emergency room 24 hours later where he died. The diagnosis was meningitis.

A suit was filed accusing the pediatrician of negligent behavior because he did not inform the mother to seek additional treatment if the infant's condition did not improve. The pediatrician had not made a notation of the call in the infant's medical records, and during his deposition could not recall the specifics of the conversation.

Another example involves a family practitioner who ordered a mammogram for a patient. The results indicated a suspicious mass. An office employee finally talked to the patient after numerous unsuccessful attempts to reach the patient by phone. According to the doctor's instructions, the staff member told the patient to return for re-examination due to the findings. The patient did not return. She later was diagnosed with metastatic breast

A suit was filed in which the patient alleged that she was never informed of the findings. The medical records did not contain documentation of the attempts or actual discussion with the patient

phone conversation."

Explanations such as these often are reasonable. At times phone conversations are not notable and do not call for a chart entry. However, the recurrence of examples like these suggests that some phone conversations should be documented.

David Karp, professional liability claims consultant, recommends these guidelines in charting phone conversations:

1. Document phone calls in which positive test results are reported to patients; note that the patient was advised to return or seek other medical attention or was told to take some specific action. Physician office employees who place calls should include

the date and their

signature.

2. Document conversations in which significant medical advice is given or history is obtained. The meningitis case above illustrates the impor-

tance of documenting advice, especially when speaking with an unfamiliar patient. Documentation also is important when the discussion is about changes in medication use, when the advice is considered an interim measure and in cases that involve common symptoms that, if they persist, could indicate a more serious problem.

3. Document the substance of calls to consultants contacted for advice about a specific patient.

Conversations should be noted in progress records. If the chart is not accessible, it is recom-

While reviewing medical records, we often find a lack of medical documentation regarding phone calls made either to or by the physician.

> via the telephone. The office employee said she made many phone calls to patients and did not remember this particular situ-

> Documenting significant telephone calls is a task some physicians overlook. Here are some reasons physicians give for not documenting phone calls: "I didn't have the chart available." "I thought the patient understood the seriousness of my advice." "I wasn't in the office at the time." "It was a colleague's patient." "I'd never have time to see patients if I had to document every

mended that a "message slip" or phone records be used. These can be pocket-size for easy accessibility. The information should include the date, time, patient's name, caller's name, the reason for the call and the advice given to the caller. Calls taken away from the office, such as at the hospital or home, also must be documented. These "slips or

records" can then be securely placed in the history and physical section of the patient's medical record.

Message slips or phone records can be purchased, developed by the physician or office staff or possibly obtained from the physician's professional liability carrier.

Written documentation can be

vital to your defense. When a chart is not available, use a consistent form of documentation. Consistency in documentation will help convince a plaintiff's attorney or jury that you record phone calls.

Ms. Killila is director of education and risk management, Physicians Insurance Company of Indiana.

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# September CME quiz answers

The following letters are the answers to the CME quiz that appeared in the September 1990 issue: "Pregnancy, abruptio placentae and cocaine."

- 1. b. 6. b.
- 2. b. 7. a. 3. b. 8. a.
- 4. e. 9. b.
  - c. 10. b.

# Physician assistance coordinator joins ISMA staff

Candace Backer has joined the Indiana State Medical Association staff as coordinator for the Physician Assistance Program. She will work with Kete Cockrell, M.D., the program's medical director.

Ms. Backer most recently directed a transitional living program for recovering male alcoholics at the Koala Center in Indianapolis. She joined the Koala Centers staff in 1983, working as an adolescent addictions therapist in Columbus, Ind. When the Koala Adolescent Center opened in Indianapolis in 1985, she became a clinical supervisor.

She received a bachelor's degree in social work from Indiana State University in 1981 and her master's degree in social work from Indiana University-Purdue University at Indianapolis in 1986. A member of the Academy of Certified Social Workers, she also is a Certified Alcohol Counselor through the Indiana Counselors Association on Alcohol and Drug Abuse.

The ISMA Physician Assistance Program began operating in September 1988 under the leadership of Dr. Cockrell and the Com-

mission on Physician Assistance. Commission members and Dr. Cockrell are available to do the following:

• Present educational programs on the impaired physician, his or her family and intervention, identification, treatment and reentry into practice.

• Assist hospital staffs in the establishment of physician assistance committees and offer counseling to members of these committees concerning policies and procedures that have proven effective in other hospitals throughout the United States.

• Act as preceptors to organize and execute interventions when requested by individual physicians, physicians' families or hospital staffs.

• Assist hospital staffs and county committees in tailoring the standard intervention, treatment and recovery contracts developed by the commission to the needs of individual cases.

• Serve as monitors and advocates for physicians during recovery.

 Advocate before the Medical Licensing Board of Indiana, the Drug Enforcement Agency and the Indiana State Controlled Substance Registration Board on behalf of physicians in recovery.

Funds for the program have come from the ISMA and voluntary contributions from individual physicians and hospital medical staffs

The program benefits physicians in many ways. Physicians have access to an advocate before the medical licensing board, and in many instances a physician may be allowed to keep his or her license while undergoing treatment and monitoring by the commission. The program has resulted in a positive relationship with the medical licensing board and an increased trust by the board in ISMA's ability to treat impaired physicians. In addition, fewer physicians will make headlines in Indiana newspapers for alcohol- or drug-related problems. Most important, however, capable physicians are treated and return to practicing medicine.

More information about the Physician Assistance Program will be included in future issues of INDIANA MEDICINE. For more immediate information or assistance, call Ms. Backer, (317) 925-7545 or 1-800-969-7545. Anonymous calls are accepted.

# auxiliary report

#### Ann Wrenn ISMA Auxiliary

Impairment in the medical family has become a major concern of the ISMA Auxiliary.

The stressful lifestyle in a physician's family helps explain why impairment is a problem for some physicians and why many physicians are leaving the profession to which they had committed their lives.

To help address the problem of physician impairment, the ISMA House of Delegates in 1977 established an ad hoc committee on impaired physicians. The committee advanced to one of the six ISMA commissions, known as the Commission on Physician Assistance (COPA). The commission meets at least quarterly and has deliberated on both policy and individual physician impairment. The commission consists of a chairman appointed by the ISMA president and 12 district commissioners appointed by the president to represent their district on the commission. In addition, the auxiliary has two representatives on the commission.

For several years, the auxiliary had one representative on COPA. Since 1987, however, two members, Lura Stone and Ann Wrenn, have served on the commission. Both were ISMA Auxiliary presidents and familiar with the programs and projects of the county auxiliaries. During discussions with auxiliary members around the state, Mrs. Stone and Mrs. Wrenn realized that physicians' spouses and families

needed support in stressful times.

During an impairment "breakout session" at the auxiliary's 1986 annual convention, the auxiliary realized that members were suffering and struggling as a result of alcoholism and drug dependency in their families. The auxiliary also became aware that members did not like being told to seek help at local drug and alcohol rehabilitation facilities. Members were acutely aware of their position in the community, and none were willing to jeopardize their family's reputation by seeking help from local agencies.

The auxiliary would like to see a supportive program established in Indiana based on complete confidentiality, professional counseling and medical referrals. The commission director, coordinator and members concur with these ideas and have incorporated this into their long-range plans.

On Sept. 1, 1988, the ISMA contracted with D. Kete Cockrell, M.D., to become medical director of COPA. Dr. Cockrell is certified by the American Medical Society on Alcoholism and Other Drug Dependencies and has a full-time practice in addictionology.

Recently, the commission added a program coordinator to the ISMA staff. In July, Candace Backer began working with the program. She has worked in addictions for 10 years, is a member of the Academy of Certified Social Workers and is a certified alcohol counselor through ICAADA.

The American Medical Association and the ISMA recognize the need for programs to assist impaired physicians. At least 85%

to 95% of physician impairment is related to chemical dependency (alcoholism and drug addiction). Physical disability, organic brain syndrome and psychiatric disorders account for the remaining 5% to 15%. The incidence and prevalence of physician impairment are unknown. However, based on an estimate that 10% of the general population has the tendency for the disease, the incidence of alcoholism in the medical profession is estimated to be approximately identical. Approximately 8,000 physicians practice in Indiana, so simple arithmetic will reveal the number who are alcoholics. This total, of course, does not include physicians' families or any other drug dependencies.

Prompt intervention and treatment are the next steps. Continuing care and monitored re-entry into professional, social and family responsibilities represent the next phase in recovery. Identification of the impaired physician is sometimes very easy but usually difficult. Physicians and their families tend to lead private lives, keeping their problems to themselves because physicians sometimes believe they can solve all problems. Unless a public incident occurs, they often hide their impairment.

If ever physicians need our support, it is now. If ever our communities need our health advocacy, it is now. If ever the medical family needs our encouragement, it is now.

Future articles in INDIANA MEDICINE will continue to discuss this issue. □

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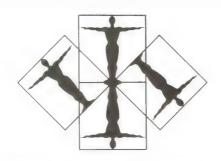
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#### news briefs

Indiana Medical Group Managers Day is Nov. 8

Indiana medical group managers are invited to attend a risk management program and luncheon Nov. 8 at the Radisson Hotel in Indianapolis. Program sponsors are the Indiana Medical Group Managers Association, the Indiana State Medical Association and Physicians Insurance Company of Indiana.

Topics will include: follow-up/tracking; billing and collection; the medical record; the medical staff – the physician; advertising liability; telephone errors; and medical-legal issues. The program is free, and group managers will receive three Category I credits.

To register, call Lori Munroe or DeeDee Bates at PICI, (317) 469-4100 or 1-800-284-7424.

Video educates seriously arthritic patients

A new educational video, "Simple Steps," is available from Healthvision Inc. The 15-minute video is designed to alleviate arthritic patients' fears and answer their most frequently asked questions about total joint replacement surgery.

"Simple Steps" contains testimonials and covers the risks and complications of the surgery. For more information about the video, write Healthvision, 6508 Westfield Blvd., Indianapolis, IN 46220. To preview or purchase the video, call 1-800-999-2266.

## AMA-HMSS meeting scheduled Nov. 29

Medical staffs from across the country are encouraged to elect a medical staff representative to participate in the American Medical Association – Hospital Medical Staff Section (AMA-HMSS) 16th Assembly Meeting Nov. 29 through Dec. 3 at The Peabody Orlando in Orlando, Fla.

The AMA-HMSS assembly provides medical staffs with an opportunity to discuss and participate in the AMA's policy-making process. A program on economic credentialing also will be presented.

For more information, call (312) 464-4754 or (312) 464-4761.

## NIH conference addresses uses of botulinum toxin

"The Clinical Uses of Botulinum Toxin" is the subject of an upcoming consensus development conference sponsored by the National Institutes of Health (NIH). The conference is Nov. 12 through 14 at the NIH Clinical Center in Bethesda, Md.

The purpose of the conference is to reach an agreement on botulinum toxin. Specialists in neurology, ophthalmology and otolaryngology will be united during the conference.

For more information or to register, contact the Conference Registrar, Prospect Associates, 1801 Rockville Pike, Suite 500, Rockville, MD 20852, (301) 468-MEET.

#### NIH panel issues reports

The National Institutes of Health (NIH) has issued consensus development statements on "The Treatment of Sleep Disorders of Older People," "Surgery for Epilepsy" and "Adjuvant Therapy for Patients with Colon and Rectal Cancer."

The reports were prepared by panels of experts who considered scientific evidence presented at NIH Consensus Development Conferences. The statements contain their recommendations and conclusions.

Free, single copies of each statement may be obtained by writing William H. Hall, Director of Communications, Office of Medical Applications of Research, NIH, Building 1, Room 259, Bethesda, MD 20892.

# McMaster University will present conference Nov. 9

The McMaster University Faculty of Health Sciences will present "Enhancing Physician Competence" Nov. 9 and 10 at the Sheraton Hotel in Hamilton, Ontario.

Topics to be addressed include chart-simulated recall, oral examinations, standardized patient visits, peer assessment and physician enhancement. Participants will earn 14 Category I credits. For a conference brochure or to register, call Rose Alaimo, McMaster University, Health Sciences Centre, (416) 525-9140, ext. 2219 or 2223.

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## people

Dr. William A. Byron Jr. received the Internal Medicine Teacher of the Year Award from the 1989-90 house staff of St. Vincent Hospital and Health Care Center in Indianapolis.

Drs. Paul J. Hamori and Robbyn M. Nein have joined Harcourt Road Internists Inc. in the practice of internal medicine as staff members of St. Vincent Hospital and Health Care Center

in Indianapolis.

**Dr. Randall C. Morgan**, a Gary orthopaedic surgeon, was reelected vice speaker of the National Medical Association at its 95th annual convention and scientific assembly in Las Vegas.

Dr. Hans R. Wilbrandt of Indianapolis recently attended the Ophthalmology Alumni Meeting on Ophthalmic Lasers at the St. Louis University School of Medicine. He also attended the Canadian Rockies Symposium on Cataract and Refractive Surgery in July.

Drs. Joseph R. Baele, David A. Fisher and Sanford S. Kunkle, all of Orthopaedics Indianapolis Inc., were certified in orthopaedic surgery by the American Board of

Orthopaedic Surgery.

Dr. Robert F. Jackson, a Marion general surgeon, was awarded the Golden Deeds Award for helping Haiti and the Dominican Republic with their medical problems for the last 16 years.

Dr. Jeffrey R. Beardmore of Lafayette was named a fellow of the American Academy of Pediat-

**Dr. Donald M. Lane** of Muncie has been certified by the American Board of Anesthesiology.

#### Physician Recognition Award recipients

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Ahlbrand, Roland C., Fort Wayne Ball, G. Michael, Marion Barrett, Warrick L., Indianapolis Boen, Bradley N., Muncie Bourgasser, Gene A., Sullivan Brown, Randall D., South Bend Cho, Hun-Koo, South Bend DeWester, Gerald M., Indianapolis Fiacable, Joseph P., Fort Wayne Franks, Charles D., Newburgh Gilkison, William M., Indianapolis Gillum, Eugene M., Portland

Jones, Thomas A., Indianapolis Kissel, Wesley A., Bloomington Musselman, Robert H. Jr., Fort Wayne Novak, Joseph L., Fort Wayne Price, Francis W. Jr., Indianapolis Rumana, Robert H., Bluffton Shinn, Gloria L., Bluffton Simonsen, Thomas E., Fort Wayne Stogdill, Thomas B., Bluffton Walters, Daniel A., Seymour Whitson, William E., Indianapolis

Dr. Patrick C. Silveus, a
Mentone family practitioner, was
named vice president of the medical staff at Kosciusko Community
Hospital in Warsaw. Dr. Mark A.
Jensen, a general surgeon, and
Dr. Douglas E. Sawyer, a family
practitioner, both of Warsaw,
were named program chairman
and secretary, respectively.

Dr. Robert E. Hannemann, a pediatrician at the Arnett Clinic in Lafayette, was elected district chairman of the American Academy of Pediatrics; he will represent Indiana, Michigan, Ohio and

Ontario.

**Dr. Mohsen Ehsan**, a New Albany internist, will chair the monthly meetings of the new Indiana Chapter of Arthritis is Caring Together.

Dr. Jerard G. Ruff, a pediatrician at Bloomington Hospital for more than 25 years, was named a

recipient of the Ray Sears Memorial Award for Good Health by Sen. Richard Lugar.

Dr. Joseph E. Walther, founder and former president of Winona Memorial Hospital in Indianapolis, was named a master of the American College of Gastroenterology. He is now president and chief executive officer of the Walther Cancer Institute in Indianapolis.

Dr. Ronald G. Blankenbaker, vice president of medical affairs at St. Vincent Hospital in Indianapolis, and Dr. Jackie L. Evans, an Indianapolis family practitioner, were elected board members of the Indianapolis Chapter of the American Diabetes Association.

**Dr. Henry S. Lebioda**, a Merrillville family practitioner, has retired after practicing 46 years.

# people

New ISMA members Mark D. Cohen, M.D., Beech Grove, cardiovascular diseases.

Mary L. Forster, M.D., Indianapolis, anatomic/clinical pathology.

Clifford F. Hornback, M.D., Crawfordsville, orthopaedic surgery.

James W. Kozelka, M.D., Valparaiso, neurology.

Mary S. Newell, M.D., Valparaiso, radiology.

Thomas J. O'Connor, M.D., Lafayette, general surgery.

Vicente C. Pacheco, M.D., Mishawaka, psychiatry.

**David F. Sonego**, M.D., Mishawaka, psychiatry.

Michael R. Stewart, M.D.,

Crawfordsville, general surgery.

Residents

Renita A. Brown, M.D., Indianapolis, infectious diseases.

Christopher M. Callahan, M.D., Indianapolis, internal medicine.

Mark A. Cepela, M.D., Indianapolis, ophthalmology.

Mary C. Eisenhut, M.D., Indianapolis, anatomic/clinical pathology.

**Gary L. Gettelfinger**, M.D., Indianapolis, anesthesiology.

James H. Goszkowski, M.D., Indianapolis, internal medicine.

**Paul J. Hamori**, M.D., Indianapolis, internal medicine.

J. Michael Harshman, M.D.,

Kokomo, urological surgery. **Catherine L. Herod**, M.D.,

Indianapolis, psychiatry.

**Sharon T. Laufer**, M.D., Corydon, family practice.

John H. Mahon, M.D., South

Bend, orthopaedic surgery.

Debra A. Marshino, M.D.,

Danville, psychiatry.

Barry A. Mathison, M.D.,

Muncie, family practice.

Christopher J. Quinn, M.D.,

South Bend, family practice.

Vadal Ranganathan, M.D.,

Warsaw, neurology.

**Douglas W. Widman**, M.D., Indianapolis, therapeutic radiology.

William J. Wiseman, M.D., Indianapolis, psychiatry. □



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#### Classifieds

FAMILY PRACTICE - Eastern Indiana. Need family practitioner to join established medical practice in small eastern Indiana community. Guaranteed salary and vacation. Contact: John L. Earnest, Ambucare Medical Management, P.O. Box 1897, Marion, IN 46952, (317) 668-1500.

GENERAL SURGERY - Eastern Indiana. Need board eligible/board certified general surgeon to join busy solo general surgeon in small eastern Indiana community. Guaranteed salary/vacation/education leave. Contact: John L. Earnest, Ambucare Medical Management, P.O. Box 1897, Marion, IN 46952, (317) 668-1500.

**FOR SALE** - Medical office equipment, examining tables, books, etc. Doctor retired. Please call (317) 552-7278.

LAKE COUNTY - Dynamic emergency physician group practicing in Chicagoland and northwest Indiana since 1971. Career opportunity for well-trained emergency physician. Attractive competitive remuneration, fully paid occurrence malpractice insurance, flexible scheduling, enjoyable working environment and state-of-the-art facilities. For more information, call Mariele McBride or Dr. Marshall Segal, (312) 327-0777, or write Emergency Medicine, S.C., 2142 North Sedgwick, Chicago, IL 60614.

FOR SALE - Medical practice in north central Indiana. Practice suitable for either family practitioner or internist. No current internist in county of 20,000+. Sale price less than year's net, includes equipment. Excellent educational system in this town of 9,000. Nearby lakes and colleges. Please call (219) 936-2885, evenings.

**NEAR CHICAGO** - Family practice clinic in northwest Indiana. Young, growing suburban area. Excellent guarantee, benefits, insurance,

etc. OB optional. Contact Lynn Clayton, The Furst Group, One Appletree Square, Suite 1300, Minneapolis, MN 55425, 1-800-728-6032.

BC/BE DIABETOLOGIST-ENDOCRI-NOLOGIST wanted to join the same immediately. 700-bed tertiary hospital with active diabetes program. Fully furnished office, excellent salary and fringe benefits available. Write in confidence to: P.O. Box 68065, Indianapolis, IN 46268.

IMMEDIATELY AVAILABLE - Fully furnished office space to share with another internist/physician. Heather Glen Medical Building (west of St. Vincent Hospital in Indianapolis). Terms negotiable. Call Dr. Athar, (317) 872-5159.

CME APPLIED FOR - Attend Medico/Legal Seminars. SIMBA West XI, Vail, Colo., Feb. 2-9, 1991. SIMBA South VIII, Sanibel Island, Fla., March 23-30, 1991. Join us in mountains or by sea. Sun, fun and group discounts. (317) 871-6222.

EMERGENCY MEDICINE - GENERAL PRACTICE: Expanding emergency medicine-general practice contract group needs general practice physician for central Indiana facility. Guaranteed salary and vacation. Contact PREFERRED MEDICAL MANAGEMENT, P.O. Box 1897, Marion, IN 46952.

GASTROENTEROLOGIST WANTED -FLORIDA. Terrific medium-sized coastal town. Two personable solo GI's seeking same to share heavy case load and coverage. Mail CV to: Richard Libby, 5510 Montgomery St., Chevy Chase, MD 20015.

PHYSICIANS NEEDED - The Indiana Department of Correction is expanding its health care services program. This has resulted in many new positions throughout the state for physicians. A negotiated salary based on a 2% differential for each year of experience will be considered. Contract services can be negotiated as well. The Department of Correction provides excellent fringe benefits and both job security and opportunity for advancement. If interested please contact Sheree Bryan, recruiter, (317) 232-1062, Monday to Friday, 8:30 a.m. to 4:30 p.m., Indiana Department of Correction, 100 Senate Ave., Room 801, State Office Building, Indianapolis, IN 46204.

MEDICAL DIRECTOR: Immediate opportunity available for experienced physician interested in a clinical/administrative position. Our community health center is committed to providing quality care to the residents of our neighborhood, including the medically indigent. Contact: David A. Robinson, Executive Director, People's Health Center, 2340 E. 10th St., Indianapolis, IN 46201, (317) 633-7360. EOE.

PRIVATE PRACTICE would like to sell: ATL Ultramark IV Cardiac Ultrasound System, 3 years old; includes 2D Echo, M-Mode Scan, CW and Pulsed Doppler; has capabilities for carotid and peripheral Doppler; system comes with (1) 2.25 MHz Probe, (1) 3 MHz Probe, (2) 2.25 MHz CW Doppler Transducer. Quinton Treadmill Monitoring Unit. For more information, please call (317) 664-1201.

PRIVATE PRACTICE OPPORTUNITIES exist in southern Indiana, affiliated with a 590-bed hospital. Specialties include internal medicine and family practice. Competitive compensation plan and attractive partnership arrangement available. Send CV to: Don Hoit, 11222 Tesson Ferry Road, Suite 203, St. Louis, MO 63123 or call 1-800-336-3963.

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ate opening for a BE/BC non-invasive cardiologist. Echo, Doppler, Holter and treadmill are established in-clinic. Full invasive and surgical programs are established. The practice serves a large and expanding regional referral area in mid-Michigan. Generous compensation and early partnership are available. Send CV to: The Heart Group, P.C., Attn: N. Polzin, 4701 Towne Centre Road, Suite 201, Saginaw, MI 48604.

GASTROENTEROLOGIST - 235-bed JCAHO-accredited acute care hospital's medical staff offers career opportunity for board-certified (or eligible) gastroenterologist. Central Indiana location in community of nearly 40,000 and service area of more than 85,000 with excellent educational, cultural and recreational opportunities affords easy access to major metro areas. Qualified applicants should submit resumes in confidence to: John W. Green, Administrator, Marion General Hospital, Wabash at Euclid Ave., Marion, IN 46952.

PEDIATRICIAN - 235-bed JCAHOaccredited acute care hospital's medical staff offers career opportunity for board-certified (or eligible) pediatrician. Central Indiana location in community of nearly 40,000 and service of more than 85,000 with excellent educational, cultural and recreational opportunities affords easy access to major metro areas. Qualified applicants should submit resumes in confidence to: John W. Green. Administrator, Marion General Hospital, Wabash at Euclid Ave., Marion, IN 46952, or R. Lee Walton, M.D., Chief of Pediatrics, Marion

General Hospital, Wabash at Euclid Ave., Marion, IN 46952.

MULTIPLE AND VARIED physician practice opportunities currently exist in the state of Indiana. Call Patti Quiring at (317) 633-6444 at work or (317) 823-4746 at home. Patti is a physician recruiter for Technical Resource Group, which is an executive search firm head-quartered in Indianapolis.

POSITION AVAILABLE with thriving three-clinic urgency care corporation. Practice heavily emphasizing industrial, sports medicine and wellness programs. Regular work week, no call. Assistant medical director available. Salary and benefits in six figures. Contact Dr. Dean Elzey, (219) 489-2772.

EMERGENCY MEDICINE - Terre Haute, Ind. Local multi-hospital group seeking full-time career-oriented emergency physician for position in small- and medium-volume community hospitals. Flexible scheduling, very competitive compensation package., partnerships available. Send CV or contact William R. Grannen, Priority Health Care, P.C., 7179 Lamplite Ct., Cincinnati, OH 45244, (513) 231-0922

EMERGENCY PHYSICIANS WANTED For Fayette Memorial Hospital in Connersville, Ind. Will consider all physicians with emergency medicine experience. 15,000 visits/year. Fee-for-service group does its own billing. Hourly compensation based on training, experience and qualifications. Excellent fringe benefit package includes, life, health, disability and malpractice

insurance plus CME allowance, ACEP and ISMA dues, pension plan and potential bonus. Contact: Michael D. Bishop, M.D., FACEP, Emergency Care Physicians, 640 S. Walker St., Suite A, Bloomington, IN 47403, (812) 333-2731.

FAMILY PRACTICE - Hospital-sponsored clinic opportunity. Dynamic, growth-oriented hospital in beautiful north central Wisconsin is seeking two family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to an income and benefit package that is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital, Please contact: Dan McCormick, President, Allen McCormick, France Place, Suite 920, 3601 Minnesota Drive. Bloomington, MN 55435, (612) 835-5123.

CENTRAL INDIANA - Physicianowned emergency group accepting applications for full-time, career-oriented emergency physicians. Flexible work schedules and excellent benefit package. Parttime and directorship positions also available. Send CV or contact Sherry Bussel, Midwest Medical Management Inc., 528 Turtle Creek, North Dr., Suite F-4, Indianapolis, IN 46227, (317) 783-7474. □

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#### Advertising index

Bell Atlantic TriCon Leasing	61
Central Pharmaceuticals	
The Ear Institute of Indiana	
HealthCare Managers & Consultants76	
Indianapolis Cardiology Associates71	
J.B. Cohen Realty	
Lilly, Eli & Co	
Lincoln National Life	
Medical Protective	59
Merck Sharp & DohmeCove	rs
The Monroe Clinic76	
Palisades Pharmaceuticals	02
Physicians' Directory	72
Physicians Insurance Co. of IndianaCov	er
Roche Laboratories701, 702, 70	03
G.D. Searle and Company713, 71	14
Spectrum Emergency Care69	98
Summer Trace Retirement Community	
U.S. Air Force	
Van Ausdall + Farrar	

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VASOTEC is available in 2.5-mg, 5-mg, 10-mg, and 20-mg tablet strengths

Contraindications: VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor

this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor Warnings: Angioedema Angioedema of the face extremities, tips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC in such cases. VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and tips, the condition has generally resolved without treatment, although adhibitamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be falal. Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered. (See ADVERSE REACTIONS.)

PRACTIONS S

REACTIONS S

REACT

Neutroperus/Agranulocytoss: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collaigen vascular disease Available data from clinical trials of enalignit are insufficient to show that enalignit does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropens or agranulocytosis in which a causal relationship to enalignit cannot be excluded Periodic monitoring of white blood cell counts in patients with collaigen vascular disease and renal disease should be considered

Precautions: General Impaired Renal Function As a consequence of inhibiting the renn-angiolensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals in patients with severe heart failure whose renal function may depend on the activity of the renn-angiolensin-aldosterone system, the treatment with ACE inhibitors, including VASOTEC, may be associated with oliquiria and/or progressive azotemia and rarely with acute renal failure and/or death

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon disconfinuation of enalignit and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION )

Hyperkalema Elevated serum potassium (>5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalema was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalema was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant

has actors to the everophiling in hyperacinal microble telar instructions, and the concominant use of polassium-sparing diurefics, polassium supplements, and/or polassium-containing sall substitutes, which should be used cautiously, if at all, with VASOTEC (See *Drug Interactions*).

Surgery/Anesthesia In patients undergoing major surgery or druning anesthesia with agents that produce hypotension, enalapri may block angiotensin II format on secondary to compensatory ero n release. If hypotension occurs and s considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients

Angioedema. Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swell-ing of face, extremities, eyes, lips, longue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescrib-

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume of blither causes of volume depletions such as vomiting or diarrhea may also lead to a fall in blood pressure, patients should be advised to consult with the physician

Hyperkalemia Patients should be fold not to use salt substitutes containing potassium without consulting their physician

Neutropenia Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may

NOTE. As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions

Hypotension Patients on Diurelic Therapy. Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salf intake prior to initiation of treatment with enalapril it it is necessary to continue the diuretic provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour (See WARNINGS and DOSAGE AND ADMINISTRATION)

Agents Causing Renin Release. The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyl-dopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions

Agents Increasing Serum Polassium: VASOTEC attenuates polassium loss caused by thiazide-type diuretics Polassium-sparing diuretics (e.g., spironolactone, triamferene, or amiloride), polassium supplements, or polassium-containing sall substitutes may lead to significant increases in serum polassium. Therefore, if concomi-tant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent moniforing of serum potassium. Polassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC

Lithium Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant NASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalaprii is administered concomitantly with lithium.

Pregnancy—Category C: There was no fetotoxicity or teralogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline Enalapril was not feralogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta. Because the risk of fetal loxicity with the use of ACE inhibitors has not

been clearly defined, VASOTEC® (Enalapril Maleale, MSD) should be used during pregnancy only if the potential ben efit justifies the potential risk to the fetus

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome inadvertent exposure immed to the first trimester of pregnancy has not been reported to affect fetal outcome adversely fetal exposure during the second and third timesters of pregnancy has been associated with fetal and neonatal mor bidity and mortality

biolity and morianity. When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the letus. Infants exposed in after to ACE inhibitors should be closely observed for hypotension, oligium; and hyperkalema. If oligium accurrs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ducturs afterious have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypertension, or the underlying prematurity.

Nursing Mothers: Milk in lactating rats contains radioactivity following administration of <sup>14</sup>C enalagrif maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use Safety and effectiveness in children have not been established

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

HYPERTENSION The most frequent clinical adverse experiences in controlled trials were headache (5.2%), dizziness (4.3%), and fatigue (3%)

(4.3%), and values (3%) (4.3%), and values (3%) (5%), and values (3%) (5%), and values (3%) (5%), and values (3%) (5%), and values (4.4%), and val

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and unconfrolled clinical trials were fatigue (18%), headache (18%), abdommal pain (16%), asthema (16%), orthostatic hypotension (16%), vertiging (16%), anana pectoris (15%), nausea (13%), venting (13%), orbiting (13%), dysprea (13%), uninary tract infection (13%), ash (13%), and myocardial infarction (12%)

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each

Cardiovascular Cardiac arrest, myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, *Hypotension*), pulmonary embolism and infarction, pulmonary edema, rhythm disturbances, atrial fibrillation, palpitation

Digestive lieus, pancreatitis, hepatitis (hepatocellular or cholestatic jaundice), melena, anorexia, dyspepsia, constipation, glossitis, stomatitis, dry mouth

Musculoskeletal Muscle cramps

Nervous/Psychiatric Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia

Urogenital Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION) Respiratory Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection

Skin Exfoliative dermatitis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multi-forme, urticaria, pruritus, alopecia, flushing, hyperhidrosis

Special Senses Blurred vision, taste alteration, anosmia, tinnitus, conjunctivitis, dry eyes, tearing. A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate arthratgas/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermatiologic manifestations. Anjoedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngael edema may be fatal. If angioedema of the face, extremities, lips, tongue, gloths, and/or laryno occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension. In the hyperfensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% and syncope occurred in 2.2% and patients. In the relation of the rapy in 0.1% of hyperfensive patients in heart failure patients, hypotension occurred in 5.9% and syncope occurred in 2.2% and patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings

Serum Electrolytes Hyperkalemia (see PRECAUTIONS), hyponatremia

Getainine, Blood Urae Mitrogen In controlled clinical trials, immor increases in blood urea nitrogen and serum cre-alinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hyperten-sion treated with VASOTEC atone Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis (See PRECAUTIONS) In patients with heart failure who were also receiving duretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon dis-continuation of VASOTEC and/or other concomitant duretic therapy, were observed in about 11% of patients increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients

Hemoglobin and Hematocrit Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g/s and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients freated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials less than 0.1% of patients discontinued therapy due to anemia.

Other (Causal Relationship Unknown). In marketing experience, rare cases of neutropenia, thrombocylopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD

Liver Function Tests Elevations of liver enzymes and/or serum bilirubin have occurred

Dosage and Administration: Hypertension In patients who are currently being freated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed if the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and, until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUtwo hours and units block TIONS, Drug interactions )

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with polassium supplements, polassium salt substitutes, or polassium sparing diuretics may lead to increases of serum polassium (see PRECAUTIONS)

Dosage Adjustment in Hypertensive Patients with Renal Impairment. The usual dose of enalapril is recommended for patients with a creatinine clearance > 30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with recatinine clearance < 30 mL/min (serum creatinine > 3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily Heart Falure VASOTEC is indicated as adjunctive therapy with duretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour (See WARN-INGS and PRECAUTIONS, Dirigi interactions) if possible, the dose of the duretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose litration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The waximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with house-daily dosing in a didition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses (See CLINICAL PHARMACOLLOGY, Pharmacodynamics and Clinical Effects) Dosage may be adjusted depending upon clinical or hemodynamic response (See WARNINGS).

Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia. In patients with heart failure who have hyponatremia (serum sodium < 130 mEq/L) or with serum creatinine > 1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, Heary should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, Heary should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, Heary should be initiated at 2.5 mg daily under close medical supervision.) The dose may be increased to 2.5 mg bi.d., then 5 mg bi.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg

For more detailed information, consult your MSD Representative or see Prescribing Information, Merck Sharp & Dohme, Division of Merck & Co., INC., West Point, PA 19486. J9V561R2(820)



## THERAPY THAT MAY BE AS SILENT AS HYPERTENSION ITSELF

VASOTEC is generally well tolerated undesirable effects associated with selected agents in other

VASOTEC is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor. A diminished antihypertensive effect toward the end of the dosing interval can occur in some patients.

For a Brief Summary of Prescribing Information, please see the last page of this advertisement.

HYPERTENSIVE PATIENTS

## INDIANA MEDICINE

November 1990 Vol. 83, No. 11

Cruzan:





**Brief Summary** 

Consult the package literature for prescribing information. Indication: Lower respiratory infections, including pneumonia, caused by Streptococcus pneumoniae, Haemophilus influenzae, and Streptococcus pyogenes (group A β-hemolytic streptococci)

Contraindication: Known allergy to cephalosporins
Warnings: CECLOR SHOULD BE ADMINISTERED CAUTIOUSLY TO PENICILLIN-SENSITIVE PATIENTS PENICILLINS AND CEPHALOSPORINS SHOW PARTIAL CROSS-ALLERGENICITY. POSSIBLE REACTIONS INCLUDE ANAPHYLAXIS.

Administer cautiously to allergic patients

Pseudomembranous colltis has been reported with virtually all broad-spectrum antibiotics. It must be considered in differential diagnosis of antibiotic-associated diarrhea. Colon flora is altered by broad-spectrum antibiotic treatment, possibly resulting in antibioticassociated colitis

#### Precautions:

- Discontinue Ceclor in the event of allergic reactions to it. · Prolonged use may result in overgrowth of nonsusceptible organisms
- · Positive direct Coombs' tests have been reported during treatment with cephalosporins

  Ceclor should be administered with caution in the
- presence of markedly impaired renal function. Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made Broad-spectrum antibiotics should be prescribed with
- caution in individuals with a history of gastrointestinal disease, particularly colitis
- · Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor penetrates mother's milk. Exercise caution in prescribing for these patients

Adverse Reactions: (percentage of patients)

Therapy-related adverse reactions are uncommon Those reported include:

· Hypersensitivity reactions have been reported in about 1.5% of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombos tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions have been reported with the use of Ceclor. These are characterized by findings of erythema multiforme, rashes, and other skin manifestations accompanied by arthritis/arthralgia, with or without fever, and differ from classic serum sickness in that there is infrequently associated lymphadenopathy and proteinuria, no circulating immune complexes, and no evidence to date of sequelae of the reaction. While further investigation is ongoing, serum-sickness-like reactions appear to be due to hypersensitivity and more often occur during or following a second (or subsequent) course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults with an overall occurrence ranging from 1 in 200 (0.5%) in one focused trial to 2 in 8,346 (0.024%) in overall clinical trials (with an incidence in children in clinical trials of 0.055%) to 1 in 38,000 (0.003%) in spontaneous event reports. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy; occasionally these reactions have resulted in hospitalization usually of short duration (median hospitalization = two to three days, based on postmarketing surveillance studies). In those requiring hospitalization, the symptoms have ranged from mild to severe at the time of admission with more of the severe reactions occurring in children. Antihistamines and glucocorticoids appear to enhance resolution of the signs and symptoms. No serious sequelae have been reported.

· Stevens-Johnson syndrome, toxic epidermal necrolysis,

and anaphylaxis have been reported rarely. Anaphylaxis may be more common in patients with a history of penicillin allergy

Gastrointestinal (mostly diarrhea): 2.5%

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment

· As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely

· Rarely, reversible hyperactivity, nervousness, insomnia, confusion, hypertonia, dizziness, and somnolence have been reported

 Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1% and, rarely, thrombocytopenia and reversible interstitial nephritis

Abnormalities in laboratory results of uncertain etiology
• Slight elevations in hepatic enzymes.
• Transient lymphocytosis, leukopenia, and, rarely.

hemolytic anemia and reversible neutroper

Rare reports of increased prothrombin time with or without clinical bleeding in patients receiving Ceclor and Cournadin concomitantly

· Abnormal urinalysis; elevations in BUN or serum creatinine

Positive direct Coombs' test

False-positive tests for urinary glucose with Benedict's or Fehling's solution and Clinitest\* tablets but not with Tes-Tape\* (glucose enzymatic test strip, Lilly) PA 8791 AMP 071490LBI

Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285.



Eli Lilly Industries, Inc Carolina, Puerto Rico 00630 A Subsidiary of Eli Lilly and Company Indianapolis, Indiana 46285

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## INDIANA MEDICINE

The Journal of the Indiana State Medical Association

November 1990

Vol. 83, No. 11

#### scientific contributions

CME Computerized visual fields
Intercostal pulmonary/diaphragmatic hernia818
Nonfunctioning paraganglioma of the liver, gallbladder and common bile duct
Finally the hepatitis C virus
Medical indications and contraindications for eye donation
HAND CLINIC Osteoarthritis of the carpometacarpal joint of the thumb
features
Cruzan:Its effect on Indiana831Indiana's living will after Cruzan832The dignity of death:Some practicalconsiderations for physicians836Beyond Cruzan:Making life support decisions
The role of the PRO physician adviser



Cover story on page 831. Cover art by Diane Alfonso, Indianapolis.

#### departments

stethoscope801
from the museum802
what's new806
cme calendar808
cme quiz814
statement of ownership, manage- ment and circulation817
drug names820
auxiliary report847
etter to the editor848, 852
obituaries872
people874
news briefs877
classifieds878

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NOV 2 9 1990 stethoscope

#### Dr. Frank Ramsey retires as editor of INDIANA MEDICINE

Frank B. Ramsey, M.D., has retired as the editor of INDIANA MEDICINE and was named editor emeritus. He has served as editor since 1949. During Dr. Ramsey's tenure, the publication won three Sandoz Medical Journalism Awards and underwent many changes. A tribute to Dr. Ramsey will be included in the January 1991 issue of INDIANA MEDICINE.

Dr. George T. Lukemeyer, executive associate dean at the Indiana University School of Medicine, has been appointed chairman of the editorial board of INDIANA MEDICINE. Dr. Lukemeyer is an AMA delegate, a member of the AMA Council on Medical Education and a past ISMA president.

#### ISMA urges HHS Inspector General's resignation

The Indiana State Medical Association has joined the American Medical Association in calling for the ouster of Health and Human Services Inspector General Richard Kusserow. During a taped interview on ABC's Sept. 20 "Prime Time Live," Kusserow said a New York doctor sanctioned by his PRO was drug impaired. Although Kusserow later retracted those remarks in a letter to ABC, his comments were included in the show. The show implied that Kusserow's policies eventually caused the physician to commit suicide two years after he was excluded from Medicare.

Letters urging the resignation of Kusserow were sent to Indiana's senators and representatives and President George Bush from George H. Rawls, M.D., ISMA president. The letter said Kusserow's zeal in pursuing physicians for technical errors or minor violations has gone beyond the bounds of authority and good judgment.

The AMA said "competent and honest physicians have been damaged and many more have been unnecessarily harassed" by Kusserow's enforcement efforts. The AMA says it is bothered by Kusserow's comments on the show and the behavior of his office.

#### **HCFA** reconsidering proposed **CLIA** regulations

The Clinical Laboratory Improvement Amendment (CLIA) regulations proposed in May are being reconsidered, according to Gail Wilensky, administrator of the Health Care Financing Administration. These rules, which were authorized by CLIA of 1988, would have required federal oversight of virtually all laboratories, including physician office labs.

After receiving 50,000 letters of opposition to the rules, HCFA admitted it had "missed the boat on technology" and agreed to reconsider several portions of the rules. Many of the letters came from Indiana physicians, who alerted HCFA to the difficulty in implementing these rules. HCFA also was contacted by more than 160 congressmen, who expressed concerns for the rules. HCFA has announced that it is considering the expansion of the number of test levels and changes in personnel requirements. For information, call the ISMA Government Relations staff, (317) 925-7545 or 1-800-969-7545.

#### from the museum

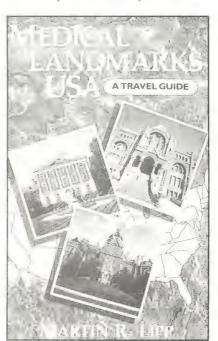
When the Indiana Medical History Museum was installing its climate control system and repainting and replastering its interior in November 1988, Martin R. Lipp, M.D., a California physician and author, visited the museum. It was his last stop on a tour of the country.

During his year-long tour, he visited every medical landmark in the country, more than 600 sites. Despite the disarray and construction in the Old Pathology Building, where the museum is housed, Lipp was impressed with its intrinsic beauty and uniqueness as a historical site.

In September 1990, the McGraw-Hill Co. published Lipp's 550-page travel guide, Medical Landmarks USA: A Travel Guide. His review of the museum was flattering. "This marvelous museum is quite simply without peer in the entire country. What sets it apart from the competition is not its collection ... but rather the incredibly well-preserved building in which the collection is displayed," he writes. "Nothing was torn out and replaced, no woodwork was painted over, no one bothered to bring metal desks and tables and tear out all the builtins. This is a pristine, turn-of-the century research building."

Lipp's one criticism is that the museum has not been able to "realize its potential" because of limited funding and staff. Yet, even this criticism is tempered with praise. "Beyond all the furnishings and paraphernalia associated with the Old Pathology Building's function, the museum - with no acquisition budget - has accumulated a remarkable collection of early medical Indiana, more than 15,000 artifacts ... this is a very special place, worthy of a visit now and of future visits as the potential of the collection becomes more fully realized," he writes.

Lipp's observations confirmed what those involved with the Old Pathology Building believed all along. The building is unique, and its collections are remarkable. But, the praise is always better



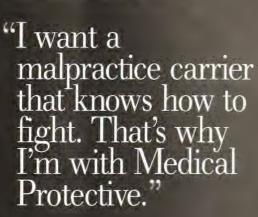
The cover of Lipp's travel guide.

coming from a neutral party.

Since Lipp's visit, the museum has progressed toward achieving its potential. A climate control system is in place, and more than 1,000 artifacts have been added to the 15,000-item collection. The museum has opened a small changing exhibits gallery where part of the collection can be used and displayed. The museum is more accessible to the public since it opened an entrance separate from Central State Hospital.

However, the museum is still many years away from reaching its full potential. This month, physicians can make a difference and help the museum. When physicians receive their Indiana State Medical Association dues statement, they can enclose a voluntary \$10 contribution to the museum. This year, for the first time, physicians also can include an extra donation to the museum. If each Indiana physician gave \$10 and an extra \$10 contribution, the museum would be on its way to reaching its potential.

Martin Lipp's Medical Landmarks USA: A Travel Guide, is available for \$24.95 from McGraw-Hill Co., 11 W. 19th St., New York, NY 10011. Quantity discounts are available. Contact the Indiana Medical History Museum for more information, (317) 635-7329. Lipp identifies more than 600 medical sites and museums and gives travel directions and information about admission fees and hours.



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#### 14:13

#### MUDICIAL BROKERS CONERAL

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## YOCON YOHIMBINE HCI

Description: Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubaceae and related trees. Also in Rauwoffia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, oddriess. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

Action: Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalmic centers and release of posterior pituitary hormone

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it; however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

**Indications:** Yocon\* is indicated as a sympathicolytic and mydriatric. It may have activity as an aphrodisiac

Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug. 1.2 Also dizziness, headache, skin flushing reported when used orally. 1.3

**Dosage and Administration:** Experimental dosage reported in treatment of erectile impotence. 1.3.4-1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to  $\frac{1}{2}$  tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks. 3

How Supplied: Oral tablets of Yocon® 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

#### References:

- A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
- Goodman, Gilman The Pharmacological basis of Therapeutics 6th ed., p. 176-188.
   McMillan December Rev. 1/85.
- Weekly Urological Clinical letter, 27:2, July 4, 1983.
- A. Morales et al., The Journal of Urology 128: 45-47, 1982.

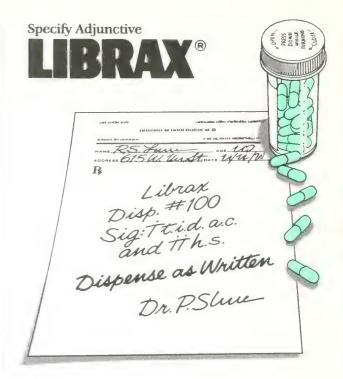
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Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium bromide.

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Br Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving)

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholnergics, inhibition of lactation may occur

As with all anticholinergies, inhibition of lactation may occur. Withdrawal symptoms of the barbiturate type have occurred after discontinuation of benzodiazepines (see Drug Abuse and Dependence).

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially, increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established. Inform patients to consult physician before increasing dose or abruptly discontinuing this drug Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment, blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy Adverse effects reported with Librax typical of anticholnergic agents, i.e., dryvess of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often wh

Drug Abuse and Dependence: Withdrawal symptoms similar to those noted with barbiturates and alcohol have occurred following abrupt discontinuance of chlordiazepoxide; more severe seen after excessive doses over extended periods, milder after taking continuously at therapeutic levels for several months. After extended therapy, avoid abrupt discontinuation and taper dosage. Carefully supervise addiction-prone individuals because of predisposition to habituation and dependence.

PI 0288



Roche Products Inc Manati, Puerto Rico 00701

IN

To insist on the brand, be sure to sign on the "Dispense as Written" line of your prescription.



In IBS,\* when it's brain versus bowel,



FOR THE PEACEMAKER

In irritable bowel syndrome,\* intestinal discomfort will often erupt in tandem with anxiety—launching a cycle of brain/bowel conflict. Make peace with Librax. Because of possible CNS effects, caution patients about activities requiring complete mental alertness.

\*Librax has been evaluated as possibly effective as adjunctive therapy in the treatment of peptic ulcer and IBS.

Specify Adjunctive



Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium bromide.



#### what's new

G.D. Searle & Co. received approval from the U.S. Food and Drug Administration to market a 100-mcg dose of Cytotec (misoprostol). It previously was available only in 200-mcg tablets.

The lower dose of Cytotec reduces the incidence of diarrhea. the most common side effect of the drug. The 100-mcg dose will be available free-of-charge under the Searle Patients in Need<sup>(R)</sup> program to indigent patients who do not receive Medicaid or other third-party assistance. It also is covered under the Searle Patient Promise® program, which provides a refund of the patient's out-of-pocket cost for the most recent prescription of a Searle drug that does not achieve its desired therapeutic benefit.

Lea & Febiger has published the latest issue of *Progress in Cardiology*, edited by Douglas P. Zipes, M.D., of the Indiana University School of Medicine in Indianapolis and Derek J. Rowlands, M.D., of the University of Manchester in Manchester, England.

The 187-page publication focuses on contemporary coronary care and contains articles on new approaches to restore flow in obstructed coronary arteries, including angioplasty, directional catherectomy and intravascular stents.

The paperback is \$39.50. To order *Progress in Cardiology 3/2* on a 30-day approval, call Lea & Febiger, 1-800-444-1785.

Lihtan Technologies Inc. has introduced two new laser systems designed to remove vascular lesions including telangiectasia, port-wine stain and pigmented lesions, such as cafe au lait and brown spots.

The Lihtan Dye laser offers a tunability range from 575 nm to 630 nm and features a dual fiber port and an optical switching device. The Lihtan Argon laser is designed to deliver blue/green or green only laser light for applications either as a stand alone unit or with a Hexascan scanner.

For information on the Lihtan lasers, write R. Scot Hunter, President, Lihtan Technologies Inc., 901 E St., Suite 210, San Rafael, CA 94901.

The Hewlett-Packard Co. has introduced the HP 13975A, a transducer-tipped intrauterine pressure catheter used to monitor intrauterine pressure during labor and delivery.

The new one-piece catheter has a microtransducer at its tip. Each is individually packaged, sterile and preloaded in a peel-away introducer, ready for insertion. This catheter has no fluid column that can trap air and adversely affect readings.

The Springhouse Corp. has released 200 Medication Errors and How to Avoid Them, a book for anyone who prescribes or administers medications.

The book contains real-life cases of common drug errors and a section showing confusing drug orders, reproduced exactly as they were written, with explanations of how and why the orders were misunderstood.

News of what is new in the medical supply industry is compiled from news releases. Each item published does not necessarily constitute an endorsement of a product or recommendation for its use by INDIANA MEDICINE or the Indiana State Medical Association.

Berna Products Corp. has received approval from the U.S. Food and Drug Administration to market Vivotif Berna, a new oral typhoid vaccine with fewer side effects than the injectable vaccine.

Vivotif Berna is a live-bacterial vaccine in a coated two-piece capsule. Four capsules are required for protection, one on each alternative day for a total of six days. A booster dose is recommended after five years if exposure to typhoid is continuous or repeated.

Siemens Medical Systems
Inc. has developed The Mammomat 2 mammography unit. It features a three-phase, microprocessor-controlled, high-frequency generator for precise exposure parameters, an automatic exposure control to compensate for breast size and tissue density and the patented "tru-spot" x-ray tube with choice of tungsten or molybdenum anode.

The Mammomat 2 is a self-contained system for screening and complete radiological diagnosis of the breast. It also contains a motorized swivel-arm for vertical adjustment, allowing positioning according to the patient's height.

The Midmark Corp. has developed a complete selection of base and overhead cabinets, desks, sinks and faucets, as well as accessories like task lights, waste receptacles and narcotics lock boxes.

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#### mcme calendar

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Nov. 16 - Ninth Annual Symposium on Ethical & Moral Issues in Medicine: Too Young to Live ... Too Old to Live? Holiday Inn North, Indianapolis. Co-sponsored with St. Vincent Hospital and Health Care Center.

Nov. 30- – Advanced Trauma Life Support, Wile Hall, Methodist Hospital, Indianapolis.

Nov. 30 – First Annual Midwest Symposium on Hyperbaric Medicine, Petticrew Auditorium, Methodist Hospital, Indianapolis.

Dec. 1 - Advances in Total Knee Arthroplasty, Methodist Hospital, Indianapolis.

Dec. 5 – Ninth Annual Toxicology Seminar, "Environmental Toxins," Westin Hotel, Indianapolis.

Feb. 20 – Occupational Medicine, Petticrew Auditorium, Methodist Hospital, Indianapolis.

For more information, call Dixie Estridge, (317) 929-3733.

**Indiana University** 

The Indiana University School of Medicine will sponsor the following courses:

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Jan. 25-26 – Risk Factors and Atherosclerosis, University Place Executive Conference Center and Hotel, Indianapolis.

For information, call Melody Dian, (317) 274-8353.

St. Luke's Medical Center

The Rush-Presbyterian-St. Luke's Medical Center in Chicago will sponsor the following CME courses:

Dec. 1 - Advances in the Management of Cardiovascular Disease, Westin Hotel, Chicago, Ill.

Dec. 5-7 – Neurology for the Non-neurologist, Westin Hotel, Chicago, Ill.

For information, call (312) 942-7095.

University of Michigan

The University of Michigan Medical School will sponsor the following courses:

Nov. 29- – The Second Annual Modern Perinatal Problems, Towsley Center, Ann Arbor, Mich.

Nov. 30- - Psychiatry Update Dec. 1 1990, The Ritz Carlton, Dearborn, Mich.

Dec. 6 - Recent Advances in the Surgical and Nonsurgical Management of Complex Hepatobiliary and Pancreatic Disorders, Towsley Center, Ann Arbor, Mich.

For additional information about these courses, call Julie Jacobs, Office of Continuing Medical Education, (313) 763-1400.

University of Wisconsin

Physicians, nurses and other health care professionals are invited to attend "Clinical Problems in Geriatrics," sponsored by the University of Wisconsin School of Medicine. The course will be held Dec. 7 and 8 at the Edgewater Hotel in Madison, Wis.

For more information, call Sarah Aslakson, (608) 263-2856.

Harvard Medical School

"Leadership for Physician Executives" will be held Dec. 2 through 7 at The Stouffer Bedford Glen Hotel in Bedford, Mass. The course will be sponsored by the Harvard Medical School and the Massachusetts Mental Health Center in association with The Levinson Institute.

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### Computerized visual fields



Louis B. Cantor, M.D. Indianapolis

The visual field has been an integral part of medicine since ancient times. Hemianopias were first described in the 5th century B.C., but it was not until the 17th century A.D. that scotoma, the blindspot associated with the optic nerve head in the eye, was first described.

Quantitative measurements were not attempted until the 18th and 19th centuries. In 1856, Von Grafe first introduced a clinical perimeter. He described the visual fields in amblyopia, central

scotomas, bitemporal and binasal hemianopias, enlargements of the blindspot and general contractions of the visual fields. These initial visual fields concentrated primarily on the central field, and further advancements allowed for investigation of the peripheral visual field.

The Goldmann perimeter advanced testing of the visual field in the 20th century. The visual field could be tested with a moving and stationary target (kinetic or static). This test proved to be the gold standard in visual field testing for the next three decades.

The visual field must be investigated meticulously by a

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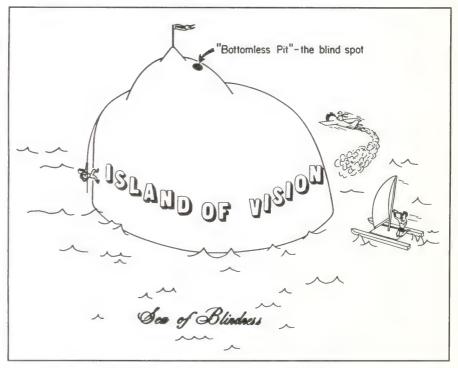


Figure 1: Traquair's island of vision in a sea of blindness.

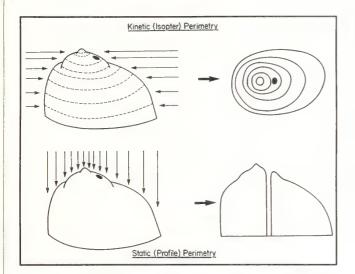


Figure 2: Kinetic (isopter) perimetry representative of manual testing. Computerized perimetry tests the visual field by a static (profile) method.

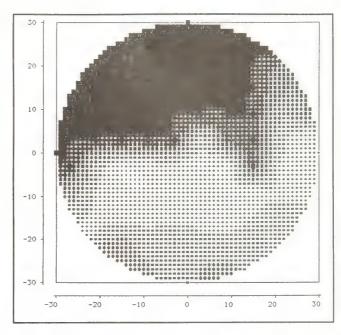


Figure 3: Dense superior arcuate defect that has broken through into the periphery. This is typical of glaucomatous visual field loss and would correlate with inferior loss of the optic disc and retinal nerve fiber layer.

skilled perimetrist using a Goldmann perimeter. When testing is performed manually, a perimetrist makes multiple judgments based on scientific knowledge and empiric information from previous experiences. The relationship between the patient and the perimetrist is important and can directly affect the results. Though high-quality testing can be performed manually, there is little consistency between various perimetrists.

Visual field testing, like other areas of medicine, has benefited from computerization. Computerized perimeters were introduced in the late 1970s, providing high-quality reproducible visual fields in any office or clinic, although it was costly. As computerized perimetry became more affordable through advances in technology, it

became common in most ophthalmic offices. However, the knowledge and experience required to interpret these tests have become more complex. The computergenerated visual field supplies the practitioner with a wealth of information and exposes one to new realities about the complexity of the visual system.

Traquair described the visual field as an "island of vision surrounded by a sea of darkness" (Figure 1). At central fixation, the island of vision will be highest because the retina is most sensitive. At the blindspot or at areas outside the visual field, retinal sensitivity is at its lowest. In between, the island of vision has a slope that we are attempting to assess. With computerized visual field testing, we are trying to determine the shape of the island of

vision. Once the retinal sensitivity has been tested at multiple points around the island of vision, a picture of the field of vision can be constructed.

Computerized perimetry allows standardization and quantification of the visual field. It is, however, a long and cumbersome testing process. A given machine will produce the same exam in a standardized fashion. With computerized perimetry, a stationary or static light of a given size is presented, and the brightness is varied until the patient can or cannot see the light, depending on the particular computer program. Manual perimetry generally tests with a kinetic method using a moving target (Figure 2).

The purpose of the most useful computerized programs for visual field testing is to find the dimmest light that the patient can see 50% of the time, called the visual threshold. This threshold can be quantitated based on the brightness of the target. Computerized perimetry also allows comparison of the patient's visual field to a normal visual field.

The most widely used application of computerized perimetry is in the diagnosis and management of glaucoma. Early glaucomatous visual field loss consisting of nasal steps, paracentral scotomas or arcuatetype scotomas can be identified and quantified by testing the retinal sensitivity. In glaucoma, there are characteristic damage to the optic nerve, leading to nerve fiber layer loss, and characteristic patterns of visual field loss (Figure 3). Inferior nerve damage leads to superior visual field loss and vice versa. Computerized perimetry

not only aids in the diagnosis of glaucoma but is crucial for following the glaucoma patient and assessing the effects of therapy.

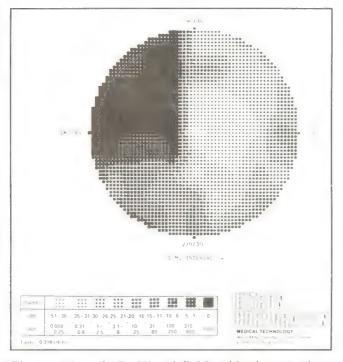
Computerized perimetry also helps diagnose neuro-ophthalmic disorders of the optic nerve and chiasm, as well as the posterior visual pathways and occipital cortex. Central or cecocentral scotomas can be diagnosed in optic neuritis. Visual field disorders of the chiasm and optic tract also can be readily identified (Figures 4A and 4B). Characteristic congruous occipital lobe defects can be delineated.

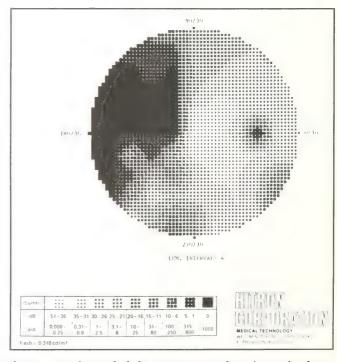
Retinal disorders also may be identified by computerized visual field testing. Subretinal metastasis from carcinoma may cause visual field defects as well as other isolated retinal diseases. Diabetes also may affect the functioning of retinal sensitivity and,

therefore, the visual field.

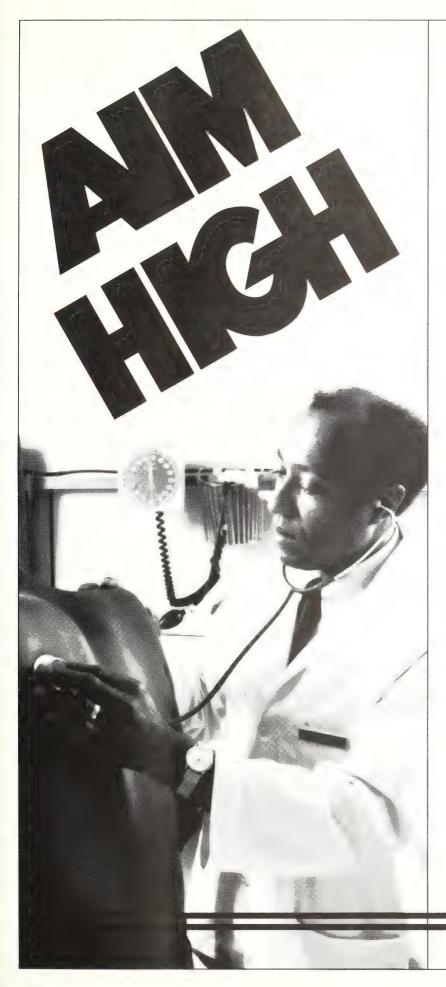
Computerized perimetry offers a precision and consistency that was not possible with manual perimetry. With computerized perimetry, we now have greater confidence in our test results and may make better judgments regarding diagnosis and treatment of a wide variety of ocular and systemic disorders. However, the computer also provides information that is often confusing and difficult to interpret; therefore, we must rely on our knowledge of disease and disease mechanisms to best apply the visual field results to the patient.

Correspondence and reprints: Louis B. Cantor, M.D., Indiana University Department of Ophthalmology, Glaucoma Section, 702 Rotary Circle, Indianapolis, IN 46202.





Figures 4A and 4B: Visual fields of both eyes of a patient demonstrating a left homonymous hemianopia that is more pronounced in the upper quadrant.



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#### Computerized visual fields

- 1. Visual field testing can be used to diagnose all of the following except:
  - a. early glaucoma
  - b. optic neuropathy
  - c. macular degeneration
  - d. occipital infarct
- 2. An advantage of computerized perimetry over manual perimetry is:
  - a. patient responses are less importantb. no perimetrist is required to run the test
  - c. there is standardization between tests
  - d. kinetic testing is done with computerized perimetry
- 3. Retinal sensitivity is highest at:
  - a. central fixation
  - b. the periphery of the visual field
  - c. the blindspot
  - d. 10° from fixation
- In computerized perimetry, a kinetic light source of a given size is presented and the brightness is varied until the patient can or cannot see the light.
  - a. true
  - b. false

- 5. The visual threshold is defined as the dimmest light that an individual will perceive 50% of the time.
  - a. true
  - b. false
- 6. Glaucomatous visual field loss typically consists of all of the following except:
  - a. nasal step
  - b. paracentral scotoma
  - c. quadrantanopia
  - d. arcuate defect
- A superior nasal visual field defect would be associated with a superior notch in the neuroretinal rim of the optic nerve.
  - a. true
  - b. false
- 8. Advantages of computerized perimetry include all of the following except:
  - a. greater quantification of the visual field
  - b. more rapid testing
  - c. broader data base for analysis of changes in visual fields
  - d. the ability to compare the visual field to the normal population

- 9. Static perimetry assesses the island of vision by:
  - a. moving light targets in from the periphery until they are seen
  - b. presenting various light stimuli at fixed locations until seen
  - c. presenting multiple lights at once
  - d. moving various light stimuli toward fixed locations until seen
- A knowledgeable perimetrist is still required for computerized perimetry to instruct the patient and assess patient performance during the test.
  - a. true
  - b. false

#### Answer sheet for CME quiz

I wish to apply for one hour of Category I AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on this answer sheet. I understand my answer sheet will be graded confidentially, at no cost to me, and notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score, but the answers will be published in the next issue of INDIANA MEDICINE.

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Answers (circle one)

1. abcd

a b c d
 a b c d

4. a b

5. a b

6. abcd 7. ab

8. abcd 9. abcd

10. a b

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#### BRIEF SUMMARY

**Contraindications:** Severe LV dysfunction (see *Warnings*), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block (if no pacemaker is present), atrial flutter/fibrillation with an accessory bypass tract (eg. WPW or LGL syndromes), hypersensitivity to verapamil

Warnings: Verapamil should be avoided in patients with severe LV dysfunction (eg. ejection fraction < 30%) or moderate to severe symptoms of cardiac failure and in patients with any degree of ventricular dysfunction if they are receiving a beta-blocker. Control milder heart failure with optimum digitalization and/or diuretics before Calan SR is used. Verapamil may occasionally produce hypotension. Elevations of liver enzymes have been reported. Several cases have been demonstrated to be produced by verapamil. Periodic monitoring of liver function in patients on verapamil is prudent. Some patients with paroxysmal and/or chronic atrial flutter/fibrillation and an accessory AV pathway (eg. WPW or LGL syndromes) have developed an increased antegrade conduction across the accessory pathway bypassing the AV node, producing a very rapid ventricular response or ventricular fibrillation after receiving LV. verapamil (or digitalis). Because of this risk, oral verapamil is contraindicated in such patients. AV block may occur (2nd- and 3rd-degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with verapamil

Precautions: Verapamil should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage Verapamil may decrease neuromuscular transmission in patients with Duchenne's muscular dystrophy and may prolong recovery from the neuromuscular blocking agent vecuronium. It may be necessary to decrease verapamil dosage in patients with attenuated neuromuscular transmis sion. Combined therapy with beta-adrenergic blockers and verapamil may result in additive negative effects on heart rate, atrioventricular conduction and/or cardiac contractility; there have been reports of excessive bradycardia and AV block, including complete heart block. The risks of such combined therapy may outweigh the benefits. The combination should be used only with caution and close monitoring. Decreased metoprolol clearance may occur with combined use. Chronic verapamil treatment can increase serum digoxin levels by 50% to 75% during the first week of therapy, which can result in digitalis toxicity. In patients with hepatic cirrhosis, verapamil may reduce total body clearance and extrarenal clearance of digitoxin. The digoxin dose should be reduced when verapamil is given, and the patient carefully monitored. Verapamil will usually have an additive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after verapamil administration

Concomitant use of flecainide and verapamil may have additive effects on myocardial contractility, AV conduction, and repolarization. Combined verapamil and quinidine therapy in patients with hypertrophic cardiomyopathy should be avoided, since significant hypotension may result. Concomitant use of lithium and verapamil may result in a lowering of serum lithium levels or increased sensitivity to lithium. Patients receiving both drugs must be monitored carefully Verapamil may increase carbamazepine concentrations during combined use. Rifampin may reduce verapamil bioavailability. Phenobarbital may increase verapamil clearance. Verapamil may increase serum levels of cyclosporin. Concomitant use of inhalation anesthetics and calcium antagonists needs careful titration to avoid excessive cardiovascular depression. Verapamil may potentiate the activity of neuromuscular blocking agents (curare-like and depolarizing); dosage reduction may be required. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. Pregnancy Category C. There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. Verapamil is excreted in breast milk; therefore, nursing should be discontinued during verapamil use

Adverse Reactions: Constipation (7.3%), dizziness (3.3%), nausea (2.7%), hypotension (2.5%), headache (2.2%), edema (1.9%), CHF, pulmonary edema (1.8%), fatigue (1.7%), dyspnea (1.4%), bradycardia: HR < 50/min (1.4%), AV block: total 1°,2°,3° (1.2%), 2° and 3° (0.8%), rash (1.2%), flushing (0.6%), elevated liver enzymes. The following reactions, reported in 1.0% or less of patients, occurred under conditions where a causal relationship is uncertain: angina pectoris, atrioventricular dissociation, chest pain, claudication, myocardial infarction, palpitations, purprura (vasculitis), syncope, diarrhea, dry mouth, gastrointestinal distress, gingival hyperplasia, ecchymosis or bruising, cerebrovascular accident, confusion, equilibrium disorders, insomnia, muscle cramps, paresthesia, psychotic symptoms, shakiness, somnolence, arrthralgia and rash, exanthema, hair loss, hyperkeratosis, macules, sweating, urticaria, Stevens-Johnson syndrome erythema multiforme, blurred vision, gynecomastia, increased urination, spotty menstruation, impotence.

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### Intercostal pulmonary/ diaphragmatic hernia

Michael S. McCrea, M.D. South Bend

Herniation of a portion of lung through a defect in the normal confines of the thoracic wall is unusual but clinically recognizable. Few reports of this entity appear in medical literature. Munnell found 105 cases of intercostal pulmonary hernias in a 1968 search of literature. Since then, few cases have been reported.

This article will acquaint phy-

#### **Abstract**

A case of post-traumatic herniation of the lung and diaphragm through the lateral thoracic wall is presented. The pathogenesis of lung hernias, their clinical signs and symptoms, as well as methods of radiographic diagnosis, are discussed.

sicians with this disorder because knowledge of intercostal hernias is essential for an accurate diagnosis.

Case report

A 57-year-old white man had a

history of chronic bronchitis and asthma since 1945. In August 1978, following a prolonged bout of coughing, he visited his physician complaining of a tender area of ecchymosis over his right lower thorax in the posterior axillary



Figure 1: PA chest radiograph at full inspiration. The costophrenic angle projects slightly lateral to the costal margin. Note the old healed ninth rib fracture with pleural scarring.



Figure 2: PA chest radiograph with the Valsalva maneuver. The intercostal hernia is accentuated.

line. Rib detail study at that time revealed a transverse fracture of the right ninth rib posterolaterally with associated extrapleural hematoma and a small amount of pleural fluid.

Since that time, the patient noted a bulging soft tissue mass over the right lower thorax that enlarged with coughing or straining. Follow-up standard posterior-anterior and lateral chest radiographs were obtained. The radiographs revealed herniation of a portion of the lateral basilar segment of the right lower lobe, as well as the lateral portion of the right hemidiaphragm through the lateral aspect of the ninth and 10th rib interspace (*Figure 1*). This hernia was accentuated with the Valsalva maneuver (Figure 2). To date, the hernia has not changed significantly in size. Surgical repair was not contemplated due to the patient's poor respiratory sta-

#### Discussion

Herniation of the lung is defined as the protrusion of the lung tissue beyond the normal confines of the thoracic cavity through an abnormal opening in the chest wall, diaphragm or mediastinum lined by pleura. Internal lung hernias (diaphragmatic pericardial and mediastinal) differ pathologically from external hernias and will not be considered here.

External lung hernias may be classified according to anatomic location, either supraclavicular or intercostal, or by cause, either congenital or acquired. Approximately 80% of lung hernias are acquired, while about 20% are congenital. Two-thirds of the lung hernias are intercostal, while one-third are supraclavicular.<sup>1-3</sup>

Most supraclavicular hernias are congenital and arise from a



Figure 3: A 65-year-old white male status post left first rib resection. There is herniation of the apex of the left lung into the supraclavicular fossa.

defect in Sibson's fascia situated between the sternocleidomastoid and the scalenous anticus muscles of the thoracic inlet. Some of these hernias have been reported in association with a variety of congenital musculoskeletal abnormalities.<sup>5-7</sup> Occasionally, supraclavicular hernias may be post-surgical (*Figure 3*).

Most intercostal hernias result from localized chest wall trauma, secondary to injury or post-surgery, or from inflammatory or neoplastic chest diseases. Most spontaneous lung hernias are associated with prolonged or excessive increase in intrathoracic pressure. They have a predilection for regions of potential weakness in the chest wall occurring anteriorly from the costochondral junction to the sternum, where there is absence of the external intercostal muscles, and posteriorly between the costal angle and the vertebrae, where there is absence of the internal intercostal muscles.

In the case described above, the prolonged bout of forceful coughing superimposed on the patient's chronic increase in intrathoracic pressure produced sufficient stress to fracture the right ninth rib and disrupt the intercostal musculature. The lateral aspect of the right hemidiaphragm likewise was subjected to excessive tension, most likely disrupting the muscular attachment of the diaphragm allowing eventration through the chest wall.

Standard chest radiographs may not demonstrate the intercostal hernia because the hernia may not reside in tangent to the PA or lateral beam. In addition, the decrease in intrathoracic pressure produced by deep inspiration may reduce the hernia sufficiently to render it radiographically undetectable. In the proper clinical setting and with negative chest radiographs, the patient should be observed fluoroscopically in oblique positions to detect the hernia. Increased intrathoracic pressure produced by coughing or Valsalva maneuver will aid in accentuating the hernia.

Asymptomatic lung hernias usually do not require surgical intervention. A lung hernia should be repaired if it produces constant pain or recurrent infection or if the person's occupation requires heavy exertion or lifting. Although not performed here, chest computed tomography would be useful as a preoperative study in evaluating the exact size and content of the hernia.

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#### drug names

#### Look-alike and sound-alike drug names

**QUAZEPAM** 

Sedative and hypnotic Category: Brand name: Doral, Baker Cummins Generic name: Quazepam

Dosage forms: **Tablets** 

**BETAXOLOL** 

Category: Beta-adrenergic blocking agent

Brand name: Kerlone, Searle

Generic name: Dosage forms:

Betaxolol HCl

**Tablets** 

OXAZEPAM

Anti-anxiety agent Serax, Wyeth Oxazepam Capsules, tablets

LABETALOL

Tablets, injection

Alpha/beta-adrenergic blocking agent Trandate, Allen & Hanburys Labetalol HCl

Normodyne, Schering

Benjamin Teplitsky, R. Ph. Brooklyn, N.Y.

ook-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions.

Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such lookalike and sound-alike drug names can reduce potential errors.

### Interactions A Medical Staff Leadership Program

#### November 29, 1990 The Peabody Orlando Orlando, Florida

Medical staff leaders may find that their special clinical skills and extensive clinical experience do little to prepare them for the complexities of this demanding role. A role that requires the skills and sensitivity of an arbitrator, facilitator, manager, advisor, negotiator, communicator, problem solver, peacemaker and professional peer.

To help you refine your personal style of leadership, develop your professional decision-making and problem-solving abilities, and enhance your repertoire of management skills, the AMA is pleased to offer Interactions, the 1990 Medical Staff Leadership Program. It offers ample opportunity for leadership skill-building, self-assessment, frank conversation and feedback.

#### **Program Participants**

If you are a new chief-of-staff, department director, committee chairman or you serve in any other leadership capacity, the AMA's new Interactions can provide you with the self-assurance and skills you need to be successful in this challenging new role.

#### **Leadership Objectives**

- Improve emerging medical staff leaders' understanding of skills needed to perform formal duties.
- Enhance the understanding of medical staff leadership conflicts inherent in today's healthcare scene.
- Increase ability to interact effectively with medical staff peers and hospital/governing body leadership.

#### **Location and Date**

The AMA Medical Staff Leadership Program will be conducted on Thursday, November 29, 1990, at the Peabody Orlando Hotel, in Orlando, Florida. For ease of accommodations and travel, the AMA offers the program one day prior to the 1990 Hospital Medical Staff Section Interim Meeting, and three days prior to the 1990 AMA Interim Meeting.

#### Registration

For immediate registration or information, call toll-free 1-800-621-8335. Please have your MasterCard or Visa ready.

#### **Registration fee**

AMA Member - \$275 Non-member - \$375



## Nonfunctioning paraganglioma of the liver, gallbladder and common bile duct

Kelly D. Ferrell, M.D. Anastacio Ng, M.D. Dale Rouch, M.D. Gonzalo T. Chua, M.D.

A 51-year-old white woman was asymptomatic when she visited her physician for an annual examination. A routine serum chemistry battery revealed mild elevation of total bilirubin, alkaline phosphatase and gamma glutamyl transpeptidase. Moderate progression of the abnormal values was noted 19 days later after repeat evaluation.

An outpatient computed tomography (CT) of the retroperitoneum revealed hypodensity in the porta hepatitis, adjacent liver parenchyma, gallbladder fossa and portacaval space, which subsequently enhanced following administration of intravenous contrast material (Figure 1). Hepatic artery and superior mesenteric arteriograms demonstrated separate hypervascular masses in each vascular axis (Figures 2 and 3). An endoscopic retrograde cholangiopancreatography (ERCP) revealed abrupt occlusion of the extrahepatic biliary tract; the main pancreatic duct was normal.

Surgical consultation was obtained, with a provisional diagnosis of malignant biliary obstruc-

#### **Abstract**

Paragangliomas are rare extra-adrenal neoplasms of neural crest origin. Although most of these lesions are of retroperitoneal origin, paragangliomas have been reported at a host of remote sites, including the urinary bladder, larynx, orbit and lung. In our review of the literature, we discovered only solitary case reports of such neoplasms involving the gallbladder and hepatic duct.<sup>1,2</sup>

We report a case of paraganglioma simultaneously involving the liver, gallbladder and common bile duct, as well as celiac and portal lymph nodes. Our findings add paraganglioma to the list of differential diagnoses for hypervascular portacaval space lesions. Furthermore, the radiographic appearance of this unusual tumor may be sufficiently distinctive to suggest the correct histologic diagnosis preoperatively.

tion. During surgery, the omentum, stomach and duodenum were adherent to a tumor in the gallbladder bed and adjacent liver. Multiple lymph nodes in both the celiac and superior mesenteric chains subsequently were found to contain paraganglioma. A right hepatic lobectomy was performed, and biliary reconstruction was accomplished by Roux-Y hepaticojejunostomy. The patient's course has been uneventful for two years.

#### Discussion

Paragangliomas traditionally are categorized as chromaffin tumors, associated with sequential ganglia of the sympathetic chain and collateral ganglia and the rarer nonchromaffin paragangliomas. The latter are found in association with visceral organs or blood vessels (parasympathetic nervous system). Nonchromaffin paragangliomas are rarely diagnosed before surgical exploration. Clinical presentation invariably involves compression effects on adjacent organs. Typical symptoms include abdominal pain, nausea, vomiting, increasing girth and weight loss.<sup>3</sup> Nonfunctioning paragangliomas do not produce distinctive laboratory manifestations.

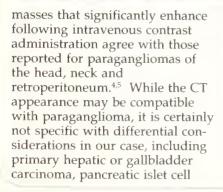
Although the CT appearance of intra-abdominal paraganglioma has not been reported to our knowledge, the findings of isodense to slightly hypodense



Figure 1A: Paraganglioma, contrast enhanced CT. Moderate contrast enhancement is noted in the portacaval distribution (arrow) at the level of the pancreatic head corresponding to nodal disease.



Figure 2: Paraganglioma, hepatic artery arteriogram. The early arterial phase demonstrates serpiginous hypervascularity in the right hepatic artery distribution.



carcinoma, metastatic disease from a distant unknown primary site, lymphoma and inflammatory masses

The key point of the case, however, involves the portacaval lesion. The normal main pancreatic duct on ERCP confirms the extra-pancreatic nature of the mass seen on CT. Differential considerations at this site would include papillary process of the



Figure 1B: Paraganglioma, contrast enhanced CT. An ill-defined mass demonstrating contrast enhancement is present in the gallbladder fossa and adjacent liver. The gallbladder is contracted and difficult to characterize. Moderate intrahepatic biliary dilatation is present (arrow).

caudate lobe, replaced hepatic artery and pathologic or nonpathologic lymph nodes.<sup>6</sup> The superior mesenteric arteriogram excludes both of the former possibilities.

Retroperitoneal lymph node metastases from hepatocellular or gallbladder carcinoma would be unusual in the portacaval space, effectively eliminating both from further consideration. Hypervascular lymphadenopathy, although uncommon, has been associated with a variety of lesions, including renal cell carcinoma metastases, lymphoma and neuroblastoma and inflammatory lymphadenitis.<sup>7,8</sup> Hypervascular angiographic features of the latter three entities significantly differ from our observations and typically include fine, mildly increased neovascularity without venous laking or arteriovenous shunting.

Metastatic disease of renal cell carcinoma could perfectly imitate the appearance of paraganglioma;



Figure 3A: Paraganglioma, superior mesenteric arteriogram. Tumor vascularity in the inferior pancreatico-duodenal artery distribution corresponds with the hypervascular portal adenopathy of Figure 1A.

however, the normal renal CT appearance excludes further consideration in our case. Although not pathognomonic, the CT, ERCP and angiographic features of paraganglioma are highly distinctive and warrant inclusion of this unusual tumor in the differential diagnosis of hypervascular portacaval space lesions.

Drs. Ng and Chua are with the Department of Radiology, and Dr. Rouch is with the Department of Transplantation at Methodist Hospital of Indiana in Indianapolis.



Figure 3B: Paraganglioma, superior mesenteric arteriogram. Early portal vein opacification (arrow) consistent with arteriovenous shunting is seen in the late arterial phase.

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## Finally ... the hepatitis C virus

Leo J. McCarthy, M.D. Margaret J. Ball, M.D. Yenshen Hsueh, M.D.

On May 2, the U.S. Food and Drug Administration licensed a new test for detecting the antibodies to the hepatitis C virus (HCV), the primary, if not the only, cause of transfusion-associated non-A, non-B hepatitis (NANBH), a term coined in a 1975 *Lancet* editorial.

Ortho Diagnostic Systems shipped test kits to all U.S. blood centers, and they began screening their blood inventories immediately. These kits should be available for routine hospital testing after all blood centers are supplied.

In 1982, the Centers for Disease Control designated NANBH as a separate reportable disease. It exists in two epidemiologically distinct forms: parenteral and enteric. Parenterally transmitted NANBH is a well-recognized infectious complication of blood transfusions. This common type of hepatitis previously was diagnosed by excluding other types of hepatitis by their serologic markers.

About 10% of those transfused each year, 350,000 in the United Sates, have developed NANBH via blood transfusion. About 175,000 become chronic carriers of this virus, and almost 17,000 eventually develop cirrhosis. About 100 million chronic

carriers exist worldwide. Twenty percent to 40% of all acute hepatitis cases are caused by HCV.

Most patients with NANBH develop nonspecific symptoms and do not become jaundiced, making this disease difficult to diagnose clinically. High-risk groups for this disease, besides transfusion recipients, include intravenous drug users, hemodialysis patients and staff, and health care workers with frequent blood contact.

Numerous infectious agents may affect the liver, but only certain viruses, A through E, specifically infect human hepatocytes. In 1968, the hepatitis B surface antigen was identified as the marker for the hepatitis B virus (HBV) and subsequently others until 1988. That year, a "new" virus, C, was identified in the plasma of chimpanzees infected with a transfusion-associated non-A, non-B agent. Researchers at the Chiron Corp. discovered this virus by isolating its viral proteins using molecular biology rather than by purifying the proteins, as is customarily done.

Another yet unknown viral agent may cause a smaller number of cases. Blood/components containing HCV antibodies are considered infectious and are destroyed. These donors are permanently deferred from donating.

The prevalence of the anti-HCV in North American and European populations is about 1%, but high numbers of false posi-

tives are expected. Nearly 75% of hemophiliacs are anti-HCV positive. Screening by this ELISA test of all blood donated is now mandatory in the United States. No confirmatory assay is available.

All blood/components for the 42 hospitals served by the Central Indiana Regional Blood Center have been tested, and only 126 donors out of 19,975 contained HCV antibodies, a 0.0063% positivity. The Fort Wayne Red Cross, an organization that provides all blood/components for 43 other Indiana hospitals, has found only 116 donors positive out of 19,408, a 0.0059% positivity.

Although these data are preliminary, our rate of positivity for HCV is below the expected rate of 1%. This indicates that Indiana donors are truly less infectious than most donors. Virtually eliminating this most common infectious complication is another milestone toward assuring a safe blood supply.  $\square$ 

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# Medical indications and contraindications for eye donation

Robert D. Deitch Jr., M.D. Fred M. Wilson II, M.D. Jana Foster Indianapolis

Except for blood, the cornea is the most commonly transplanted tissue in the United States. In 1988, 36,900 corneas were transplanted in this country, compared to 24,000 in 1984.<sup>1,2</sup>

The recent, steady increase in the number of corneal transplants is attributed to more efficient eye banking, better tissue preservation, improved surgical technology and increased public awareness, particularly regarding eye donation. The recent "required request" law that requires hospital staff to ask the family of a deceased person whether his or her organs may be donated (if the organs are considered to be suitable for donation) has increased the availability of corneal tissue.

However, potentially useful ocular tissue sometimes is lost because physicians incorrectly decide that the deceased person is not a suitable donor. As a result, the family might not even be approached and might not be given the opportunity to authorize donation.

Few contraindications exist in eye donation that place the enucleator or the recipient at risk.

#### **Abstract**

Potentially useful and valuable donor-eye tissue is lost because physicians decide erroneously that certain deceased people are not suitable donors. The Indiana Lions Eye Bank Inc. needs and will receive with gratitude any and all donated eyes. Donated ocular tissue can be used for research or teaching, if not for actual transplantation. All deceased people should be regarded as suitable eye donors, except when the cause of death or other factors might pose risks for enucleators themselves.

Specific contraindications as specified by the Eye Bank Association of America are acquired immunodeficiency syndrome (AIDS), AIDS-related complex, high-risk for AIDS (e.g., known intravenous drug use, known or suspected homosexual or bisexual activity, prostitutes, hemophiliacs, infants of mothers with AIDS, sexual contacts of high-risk groups), active hepatitis B, encephalitis, Creutzfeldt-Jakob disease and rabies.<sup>3</sup>

Donations that do not fall into these categories should be encouraged. Age is not a factor.<sup>4</sup> There are no definite postmortem time limits beyond which the donated eyes will not be accepted, although we prefer that the eyes be enucleated within six hours of death. If the body is refrigerated or ice packs are applied to the eyes, the time limit may be extended to 12 hours. These time

constraints are only guidelines because corneas from eyes obtained beyond these limits have been transplanted successfully.<sup>5</sup>

The criteria discussed above pertain only to eye donation. It is beyond the scope of this article to discuss the criteria that determine the suitability of donor tissue to be used for actual corneal transplantation. All eyes, whether used for corneal transplantation or not, are useful and desired. The sclera, in addition to the cornea, is banked and used surgically.

Virtually all eyes that cannot be used for corneal or scleral transplantation can be used and are valuable for research or teaching. Eyes that have had previous intraocular surgery may not be useful for transplantation but are submitted to local and national centers for ocular research. Findings stemming from work at these centers have helped us under-

stand and modify current surgical procedures, as well as further our understanding of the eye's pathophysiological mechanisms.

There is no evident disfigurement from enucleation. The sockets are reconstructed, and the lids are closed so the deceased person

appears to be sleeping.

Except for the rare patient who has a disease mentioned above, all eye donations are accepted and appreciated. Even though the number of corneal transplants increases annually, the demand for tissue far exceeds the supply. Patients often must wait months for corneal tissue to become available so their vision may be restored or their pain relieved.

Eyes may be donated by calling the Indiana Organ Procurement Organization Inc., 1-800-356-7757 (answered 24 hours daily) or

the Indiana Lions Eye Bank Inc., (317) 274-8527. Upon notification of a donation, an enucleator will be dispatched to the hospital or funeral home to obtain the eyes. The family is later sent a card acknowledging and thanking them for their loved one's donation.

This article was supported in part by a grant from the Indiana Lions Eye Bank Inc. and a grant for the IU School of Medicine Department of Ophthalmology from Research to Prevent Blindness in New York, N.Y.

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# Osteoarthritis of the carpometacarpal joint of the thumb

James W. Strickland, M.D. Richard S. Idler, M.D. James J. Creighton, M.D. Indianapolis

Arthritis of the joint at the base of the thumb is a frequent condition that occurs most often in middle-aged women. It is commonly associated with osteoarthritis, although rheumatoid arthritis and trauma to the articular surfaces of the joint also may predispose the condition.

Anatomy and pathology

The carpometacarpal joint of the thumb has a unique saddleshaped configuration (Figure 1) that allows the thumb to rotate in a wide motion arc from a flat plane of extension-abduction to a position of functional preparedness directly opposing but wellseparated from the other digits. It then may be rotated further to touch the tip or base of any of the four digits. Stability of this important joint depends on several small ligaments that tighten during opposition and power pinch to prevent the articular surfaces from separating as they twist on themselves.<sup>2</sup> In this position, forces are unevenly distributed over the joint surfaces, and wear will inevitably occur with time.

Ligamentous injury also may contribute to the development of carpometacarpal arthritis by allowing the joint to become hypermobile. The strong demands that are placed on the joint during everyday use will, in time, result in a painful synovitis and an accelerated articular attrition.<sup>1</sup>

Subluxation of the joint is followed by the characteristic features of osteoarthritis: narrowing of the joint space, sclerosis of bone and the development of cysts and osteophytes. The condition may progress until there is wide separation between the bases of the first and second metacarpals, and the base of the first metacarpal may become subluxed off its trapezial seat. In advanced disease there may be complete destruction of the trapeziometacarpal joint with collapse of the trapezium, adduction of the first metacarpal and arthritic deterioration on all sides of the trapezium.

#### Incidence

Women are more commonly affected than men, and symptoms occur most often in the fifth decade. The dominant hand is somewhat more affected than the nondominant hand, and bilateral involvement occurs in at least 25% of the cases.

#### Clinical characteristics

Arthritis of the carpometacarpal joint of the thumb is usually characterized by an insidious onset, often with discomfort present for many years before the patient seeks treatment. Pain at the base of the thumb during activities that longitudinally load the first ray are the most common complaints and may be associated with weakness and clumsiness. Difficulty opening jar lids and automobile doors are frequently reported. There also may be a tendency to drop objects.

Patients often will develop alternative methods of completing tasks that produce thumb pain, and a disuse atrophy of the thenar musculature may result. In advanced cases, the patient may experience aching of the base of the thumb when it is not being used. Nocturnal symptoms may be confused with carpal tunnel

syndrome.

Diagnostic features

Swelling at the base of the thumb due to synovitis and inflammation of the pericapsular structures usually is present, and lateral subluxation of the first metacarpal results in a firm prominence at the level of the joint. Tenderness to palpation is well-localized over the palmar, lateral and dorsal

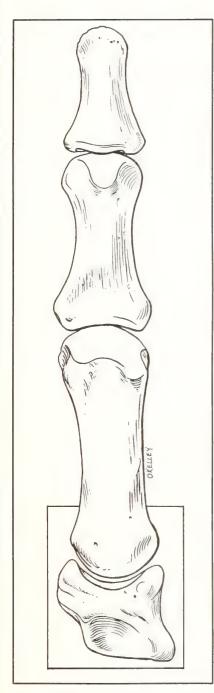


Figure 1: Saddle-shaped contour of the normal carpometacarpal joint.

margins of the joint. A diagnostic maneuver know as the "grind test" or "torque test" may distinguish carpometacarpal joint arthritis from other disorders (Figure 2).

During this test, the first metacarpal is grasped just proximal to the metacarpophalangeal joint and downward pressure is exerted. The carpometacarpal joint is alternately distracted, compressed and rotated. Pain and crepitus are pathognomonic of the disorder.

Instability can be confirmed by applying pressure to the base of the thumb and asking the patient to pinch strongly. Lateral subluxation and crepitus may be detected by this test. In later stages, first metacarpal abduction and extension become progressively limited, and pinch and grip strength measurements are reduced. Atrophy of the thenar muscles secondary to disuse also may be seen in advanced arthritis of this joint.

While the carpometacarpal joint of the thumb may be seen on standard anteroposterior x-ray views, the hyperpronated or Robert view provides the best view of the joint. This view is taken with the arm fully pronated, the shoulder internally rotated and the thumb abducted. Radiographic changes have been divided into four stages (Figure 3): stage I widening of the joint space; less than one-third subluxation and normal articular contours; stage II - one-third subluxation, irregularity or calcific deposits (less than 2 mL) of the joint margins and early erosion of the trapezium; stage III more than one-third subluxation, larger calcific deposits (greater than 2 mL) or osteophytes and joint space narrowing; and stage IV - advanced changes including

major subluxation, cystic and sclerotic bone deterioration, narrowing and destruction of the joint surfaces and large osteophyte formation.

Involvement of the other joints around the trapezium often is seen. The first metacarpal may become markedly adducted, resulting in a secondary hyperextension of the metacarpophalangeal joint.

#### **Treatment**

In the early stages of carpometacarpal arthritis, antiinflammatory medication, intraarticular steroid injection or simple splinting designed to abduct the first metacarpal and limit motion may be helpful. Many patients will obtain some transient



Figure 2: The "grind" or "torque" test for carpometacarpal joint arthritis. Compression, distraction and rotation of the first metacarpal will produce pain and crepitus at the joint.

relief from these measures, but surgery may be necessary when symptoms persist or recur, altering the patients' ability to perform daily tasks. Surgical options include carpometacarpal joint fusion or various excisional, interpositional or suspension arthroplasty procedures designed to relieve pain while preserving motion and stability in this important joint.

This is another in a series of monthly articles on hand conditions from the Indiana Center for Hand Surgery and Rehabilitation of the Hand and Upper Extremity in Indianapolis.

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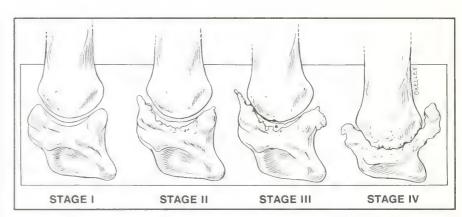


Figure 3: X-ray stages of carpometacarpal disease.

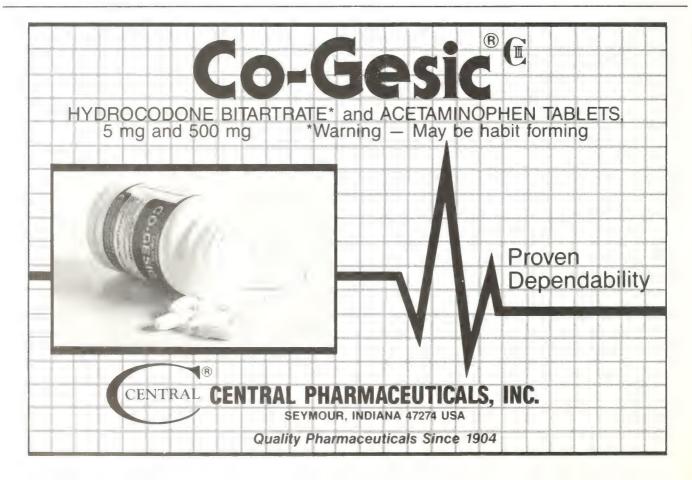
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# Cruzan: Its effect on Indiana

The U.S. Supreme Court, in a June 25 decision, ruled that competent people have a right to refuse life-sustaining treatment, including artificially given food and fluids. However, states are justified in requiring "clear and convincing" evidence of incompetent patients' wishes before allowing withdrawal of life-sustaining treatment.

As a result of this decision in *Cruzan v. Director, Missouri Dept. of Health*, Nancy Cruzan, a 33-year-old Missouri woman in a brain-damaged condition since 1983, will continue to receive artificial nutrition and hydration. Her parents had asked permission to withdraw the life-sustaining treatment because they said that is what their daughter would want. At INDIANA MEDICINE press time, the state of Missouri asked to withdraw from the case, saying it would participate in removing her feeding tube if so ordered by a judge.

Indiana physicians and lawyers discuss the impact of the Supreme Court ruling on Indiana and other issues related to life-support decisions in the articles that follow.

# Indiana's living will \_\_\_after *Cruzan*\_

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he U.S. Supreme Court's first decision regarding the rightto-die debate, in Cruzan v. Director, Missouri Department of Health,1 ostensibly raises more questions than it answers. In a 5-4 vote, the justices upheld a Missouri Supreme Court decision that denied the removal of a nutrition tube surgically implanted in Nancy Beth Cruzan, in a persistent vegetative state for seven years, overruling the wishes of her family. The standard established by the Missouri court required clear and convincing evidence that patients desire not to have life prolonged.

This is the highest evidentiary standard in civil law.

Essentially, the Supreme Court held that it was constitutionally permissible for Missouri to adhere to this higher standard of evidence and that

the family or a surrogate did not have a constitutional right to substitute judgment for the patient, per se.<sup>2</sup> The decision does not establish this standard nationally, as Justice Sandra Day O'Connor's concurrence indicates that this area of the law was best left to the "laboratory of the states." Accordingly, it also would be permissible for a state to allow the family or another to substitute judgment when the patient's desires were not clear. Only a few states – Missouri, New York,

Maine and Ohio – require clear and convincing proof of an incompetent patient's desires.

In a recent National Law Journal poll, 88% said the family should decide whether to end life support when the patient has left no instructions.4 Furthermore, this poll indicates that 8% said the decision should be left to doctors, only 1% said the decision should be left to the courts, and none said the decision should be that of the state. What would appear most clear and convincing is that most people would agree with the initial ruling by the Missouri probate judge who granted the Cruzan family's request and ruled on constitutional grounds that Nancy Cruzan had a right to be free of

Although the Supreme Court recognized that some states have held that this interest is part of a "generalized right of privacy," it took a more conservative view that this liberty interest is derived from the due process clause of the Fourteenth Amendment. More importantly, the Supreme Court noted that if an incompetent patient drafted a living will or a durable power of attorney for health care when competent, it would have to be honored as a matter of constitutional right.8 In a living will, patients specify their intentions regarding treatment into a properly attested document, whereas in a durable power of attorney, the "power" to make such decisions is transferred to a

duly appointed agent. The *Cruzan* decision has considerable implications for the citizens of Indiana regarding their living wills.

The Indiana living will statute is an expression of self determina-

tion.9 Section 1 states, "Competent adults have the right to control decisions relating to their own medical care, including the decision to have medical or surgical means or procedures calculated to prolong their lives provided, withheld, or withdrawn." In the context of the living will, section 1 applies to those with a terminal condition. Section 9 says, "As used in this chapter, 'terminal condition' means a condition caused by injury, disease or illness from which, to a reasonable de-

Additional aspects of the Cruzan decision reveal that the Supreme Court found no distinction between "artificially delivered food and water" and other forms of treatment.

intrusive medical treatment.

Additional aspects of the *Cruzan* decision reveal that the Supreme Court found no distinction between "artificially delivered food and water" and other forms of treatment.<sup>5</sup> This is consistent with the American Medical Association's position on this issue.<sup>6</sup> Also, eight of the justices found that a competent person had a constitutionally protected liberty interest that grants a patient the right to refuse unwanted medical treatment.<sup>7</sup>

gree of medical certainty: 1) there can be no recovery; and 2) death will occur from the terminal condition within a short period of time without the provision of lifeprolonging procedures."11

Section 4, which defines lifeprolonging procedures, says, "'Life-Prolonging Procedure' does not include the provision of appropriate nutrition and hydration, the administration of medication, or the performance of any medical procedure necessary to provide comfort care or to alleviate pain."12 In effect, a living will in Indiana does not allow a competent patient to forgo artificial feeding if that desire was made clear in the document. The Cruzan decision appears to overrule section 4, thereby allowing an otherwise competent adult to withhold nutrition if he or she becomes incompetent as a result of a terminal condition.

Interestingly, the living will statute has "no effect during the person's pregnancy."13 Recently, the U.S. Court of Appeals for the District of Columbia determined that a terminally ill patient who is pregnant with a viable fetus has the right to decide what will be done with the fetus.14 In this case, a woman dying of cancer was subjected to a cesarean section against her wishes, by court order, to save the life of a 26-week-old fetus. The baby died two hours after delivery, and the mother died two days later. The Cruzan decision also may trump this part of the Indiana statute, since the language in the case is broad enough to include pregnant pa-

In general, the Cruzan decision should have a minimal effect in Indiana on current medical practices dealing with the withdrawal of treatment from an incompetent patient. In most institutions, the withholding or withdrawal of care involves the approval by both health care providers and the family when there is no hope of recovery. Furthermore, Indiana does not require a clear and convincing standard of evidence of a patient's desires concerning the withdrawal of medical care. In addition, Indiana does permit substituted consent for care by a court-appointed guardian, a previously delegated representative of the patient, a spouse, parent, adult child or adult sibling, which does not violate an incompetent patient's prior instructions.15 Although such substituted judgment applies to consent for care, the Cruzan decision should make it equally applicable for the refusal of unwanted care. What is more worrisome is the possibility of liability for continuing life support against the patient's wishes. In addition to the legal causes of action of battery, malpractice and the intentional infliction of emotional distress, the Cruzan decision would add a violation of constitutional rights in such a situation.

The specific effect of the Cruzan decision on the Indiana living will statute will be to allow the following paragraph, from an actual Indiana living will, to be honored:

"Without affecting or limiting the generality of the foregoing, I specifically do not wish to have administered to me in the event of a terminal condition treatments such as surgeries, dialysis, chemotherapies, radiations, pacemakers or blood transfusions, and I further do not want electrical or mechanical resuscitation of my heart when it has stopped beating,

nasogastric tube feedings when I am paralyzed and unable to swallow and mechanical respiration when my brain can no longer sustain my own breathing." Before Cruzan, these provisions would have been struck from the will.16

A competent adult's right to medical self-determination, as stated in Cruzan, embodies some form of duty owed to that adult to derive the right in the first instance. It is a well-established principle of law that "duties precede rights, both logically and chronologically."17 Thus, rights have no independent existence before law. The threshold question is: What is the nature of the duty that elicits a right to medical self-determination? The answer lies in the doctrine of informed consent. "Every human being of adult years and sound mind has a right to determine what shall be done with his own body: and a surgeon who performs an operation without his patient's consent commits an assault, for which he is liable in damages."18

The Indiana living will statute addresses these concerns by giving the physician discretion and immunity. The living will declaration does not obligate the physician to use, withhold or withdraw life-prolonging procedures but serves as presumptive evidence of the patients' desires and gives "great weight" to the physician to determine the intent of the patient now incompetent.<sup>19</sup> In addition, a physician may refuse to abide by the declaration if the patient is transferred to another physician who will honor the living will, unless the "physician has reason to believe that the declaration was not validly executed or there is evidence that the patient no

longer intends the declaration to be enforced; and the patient is presently unable to validate the declaration."20 Thus, the statute clearly expresses the duties of the patient and the physician before a right to medical self-determination can be elicited.

The Indiana Doctrine of Informed Consent expressly states that a health care provider must discuss the proposed treatment, procedures, exam or test with the patient.<sup>21</sup> From a more pragmatic perspective, physicians may now have a duty to discuss life-prolonging procedures with patients while they are still competent. It seems prudent to do so, since the stakes are now higher. Otherwise, if a competent patient says nothing or merely refuses life support, then the patient may be obligated to accept life-sustaining procedures when incompetent.<sup>22</sup> Since

most terminally ill patients welcome such discussions, physicians should plan for such contingencies well in advance. Living wills and durable powers of attorney are preferable to oral declarations since they meet the higher evidentiary standards. Otherwise, the courts will continue to be called upon to make decisions traditionally left to the patient and physician.

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# The AMA Hospital Medical Staff Section Sixteenth Assembly Meeting November 29 - December 3, 1990 The Peabody Orlando Orlando, Florida

#### Highlights of the Interim Meeting will include:

- an educational program on Economic Credentialing;
- presentation by the AMA-HMSS Governing Council of reports on medical staff issues including Health Care Cost, Waiver of Confidentiality Upon Application for Reappointment and State Hospital Medical Staff Section (HMSS) Oversight Peer Review Committee:
- recommendation of policy to the House of Delegates on Denial of Payment for Pre-Existing Conditions, Third Party Payors and Patient Care Standards;
- AMA-HMSS Governing Council election for the position of Delegate.

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# HIMSS

# The dignity of death: Some practical considerations for physicians \_\_\_\_\_

Ralph P. Morone, M.D. Indianapolis

Death, as staged by nature, is for some the final curtain of life and for others a continuum in life.

The act of dying has become a clouded issue for us mere mortals. Instead of allowing the "Angel of Death" to unleash her terrible wrath at an opportune time, that time has been modified by our medical technological advances. The process of dying can leave us cerebrally dead but vegetatively alive and monitored by our mechanical feeding and breathing systems. This process of maintaining the shell of life can continue indefinitely. Do we have any control over this? Can we control our destiny at this stage of life or are we truly at the mercy of the system? Did the Supreme Court in the Cruzan decision help or hinder us?

Nancy Cruzan, the victim of an automobile accident, has been in a coma and vegetative state since 1983. Her parents wished to release her from this condition and requested that her feeding tube be removed. The Supreme Court upheld the state of Missouri in that "clear and convincing" proof of the patient's wishes is required before allowing the withdrawal of life-sustaining treatment. Chief Justice William H. Rehnquist said, "Not all incompetent patients will have loved ones available to serve as surrogate decision makers. A state is entitled to guard against potential abuses in such situations." The Supreme Court believed that such proof was lacking in the Cruzan

case

The positive aspects of the Cruzan decision by the Supreme Court reaffirm patients' rights regarding treatment, namely, to expect reasonable and appropriate treatment to address their needs or to refuse such treatment. If refusal of treatment is preferred under certain circumstances, the best time to address that preference is when a person is competent and conscious. The best way to accomplish that is by a living will. If a person does not develop this legal document, he or she needs to have significant others or surrogate decision makers aware of his or her wishes and properly witnessed or known so those wishes will not be questioned by the courts. "Clear and convincing" proof is the guidepost in this regard.

Indiana nursing home regulations acknowledge the right of patients to refuse treatment.1 However, the same regulations require nursing homes to meet the nutritional and hydrational needs of the patient.2 The regulations also require the nursing staff to follow a physician's orders. If a physician orders a diet that reads "50 cc of water BID," it is obvious this is inappropriate and can be interpreted as starving the patient. However, if the physician writes an order that indicates a pureed diet with liquids as tolerated, the dietary appropriateness is main-

tained.

In Indiana, one person can give another person power of attorney over certain legal matters. That power of attorney, in my understanding, continues only while the giver remains compe-

tent. When that competency ceases, the power of attorney ceases, unless the document contains a clause to cover incompetency. People who wish to legally address the possibility that the giver could become incompetent but still wish to give another person power of attorney in health care decisions can establish a durable medical power of attorney. This allows the designated person to be able to make medical decisions regarding treatment as they arise when the giver can no longer make these decisions. Of course, the other significant decision makers are the significant others, spouses, children and loved ones.

In Indiana law, provisions exist for living wills and life-prolonging procedures (simply referred to as a living will) to be executed.3 Via this document, a person can stipulate what treatment he or she wishes or expects to be provided to preserve his or her life. Also, he or she can stipulate what treatment he or she wishes to be excluded as necessary to maintain life. For example, via a living will, a person can state that if a ventilator is necessary to maintain life, then do so since it is appropriately indicated. Or, that person can state that if a ventilator is indicated, it is not preferred nor is it to be rendered.

The refusal of treatment can include feeding tubes, but the living will cannot exclude nutrition and hydration. Indiana law does not consider nutrition and hydration a treatment; therefore, it cannot be specifically excluded. Feeding tubes are considered

forms of treatment, however, and can be refused.

During the past several months. I have received several inquiries about how to handle and document a "no code status" for residents in a long-term care facility. Perhaps the need for guidance also exists in the acute care industry. Here it is appropriate to say that my comments are meant to be informational and represent my personal opinions and are not official policy or opinion of the Indiana State Board of Health. These statements are not regulatory but are meant as suggestions or recommendations to be used as guidelines.

When a patient's medical condition and preference warrant a "no code status," documentation should be specific and complete. The physician's order should specify the "no code status" as delineated by the facility's policies and procedures. Some physicians write "do not resuscitate" or "comfort measures only." These general orders could be more clearly delineated, e.g., "no CPR or oxygen," and should state which medications can be used. The physician may even write "no IV fluids" and/or "no N/G tube feedings."

Extraordinary measures to prolong life and other treatments should be covered with clarity in the facility's policies and procedures manual so there is common understanding about what these orders mean for physicians and staff.

The patient's diagnosis and medical condition should be documented in the medical record. The reasons for the particular "no

code status" should be recorded so there is no mystery why a patient is treated a certain way. The physician should be very direct and explicit in explaining his or her reasons.

If the patient is conscious and competent, informed consent for the specifics of treatment should be documented in the medical record. For that matter, the patient could compose a living will to be included in the medical record documenting his or her preferences for treatment, or lack thereof, if his or her condition should become terminal and/or require life-prolonging procedures.

If the patient is conscious and competent, informed consent for the specifics of treatment should be documented in the medical record.

If a living will or life-prolonging procedures declaration already exists, a copy should be placed in the medical records.

If the patient is not conscious or is incompetent and a living will does not exist, then the documentation should be completed by the significant other or the person designated as the responsible party, e.g., spouse, family member or guardian, and placed or written in the medical record.

If the patient has appointed a health care representative to make health care decisions for him or her, that document should be in the medical record. The health care representative should be consulted for input concerning the patient's desires regarding life-prolonging procedures.

The patient's rights are to be protected, and appropriate documentation is critical. Facility policy should be in place to direct the handling of such sensitive situations. Recourse to the courts for medico-legal direction in certain cases may be warranted.

Some hospitals and medical centers have bioethical committees to assist with these complex issues. It is time for the long-term care industry to do likewise.

With the judicious use of narcotic medication to control pain, we can reassure the members of our society that if they are in a terminal state, their last days can be met with comfort, care and compassionate contact.

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# Beyond *Cruzan*: Making \_\_life support decisions \_\_

Kathleen M. Anderson Frank D. Byrne, M.D. Richard D. Robinson, J.D.

L he Supreme Court, in Cruzan v. Director, Missouri Department of Health, recently made its first statements on the right to forgo life-sustaining treatment.<sup>1</sup> The decision was a surprise to many who did not question a family's ability to make health care decisions for a loved one. While assuming a competent patient's right to forgo life-sustaining treatment, the court did little to clarify the dilemmas involving incompetent patients.

This research focused primarily on four questions: 1) When is discussion initiated on the withholding or withdrawing of life support? 2) Who initiates it? 3) What variables affect the decisionmaking process? 4) How could the process be refined?

Although legal and medical literature provided a foundation for the research, clinical observation, questionnaires and interviews provided invaluable insight into decisions to withhold or withdraw life support.

Cruzan v. Director, Missouri Dept. of Health

When a Missouri hospital refused to terminate the provision of artificial nutrition and hydration to Nancy Cruzan, a woman who has been in a persistent vegetative state since a 1983 accident, her parents turned to the courts for assistance. While a trial court provided the necessary court approval, the Missouri Supreme Court found Cruzan's statements

concerning her health care wishes unreliable for the purpose of terminating the support and reversed the ruling.

The U.S. Supreme Court assumed a competent person's right to refuse treatment under the due process clause of the Constitution. However, an incompetent patient's interests may be balanced against the state's interests. State interests cited included the protection and preservation of human life, the safeguarding of the personal element of the choice between life and death and declining to make judgments on the "quality" of life. The U.S. Supreme Court held that the Constitution does not forbid a state from requiring clear and convincing evidence of a person's wishes before allowing the termination of life support. The proof requirements imposed by Missouri were designed to advance these state interests.

Justice O'Connor's concurrence emphasized the fact that the question of the involvement of a surrogate decision maker was not considered by the court. While other states may opt to give the families more latitude in these decisions, the emphasis in the media has been on living will declarations and other means of documenting health care wishes. The question presented by *Cruzan* is: Where do we go from here?

Implementation of the project During a 13-week period, approximately 100 hours were spent observing clinical aspects of critical care, including actual decisions to withhold or withdraw life support. Questionnaires were distributed to critical care physicians and nurses that consisted of both open- and closed-ended questions. Interviews followed the question-

The pool of 78 doctors consisted of those frequently involved in critical care, based on their specialty areas. Thirty-four critical care physicians responded to the questionnaires, yielding a 44% response rate and representing several specialties – cardiology, 9; general internal medicine, 4; nephrology, 2; neurology, 4; general surgery, 3; thoracic and cardiovascular surgery, 5; oncology, 1; and pulmonary/critical care, 4. The amount of time in practice varied from one to 39 years. Ninety-four percent of the physicians indicated they spend some or most of their practice with the critically ill.

The pool of 225 critical care nurses was limited to those at one private, not-for-profit Indiana hospital. Thirty-eight critical care nurses responded to the questionnaires, yielding a 17% response rate. The lower response rate may be attributed to the fact that the questionnaires were distributed in the intensive care unit. The time spent as a critical care nurse varied, and both the critical care and coronary care units were represented.

The anatomy of the decisionmaking process

In the questionnaires, 15 physicians revealed they initiate discussion at one specific point in a patient's illness, with seven initiating discussion when the need for life support appears likely in the near future (from days to weeks).

Thirteen physicians selected three or four times during an illness at which they may initiate discussion, and six gave two different times. Variables mentioned as affecting when the discussion is initiated included the time the physician enters the case, the type of illness or condition and the patient's or the family's ability to discuss the issue.

The question asked of the critical care nurses took a different approach: "At what point do you feel discussion should be initiated ... on the withholding or withdrawing of life support?" Of the nurses who selected only one specific point in a patient's condition, most (47%) indicated that discussions should begin when a chronic, irreversible disease process is diagnosed, an earlier point than that chosen by most physicians.

Nurses were asked who they thought should initiate discussion on the withholding or withdrawing of life support with the patient and/or the family. Sixteen (42%) said physicians

should do so, but several said the people best able to discuss it should approach the question.

Nurses then were asked, "To what degree do you become involved in discussions on the withholding or withdrawing of life support?" Five (13%) responded they "routinely initiate discussion on the question." Thirty-one nurses (82%) said they "sometimes initiate discussion on the question" or they discuss the topic when asked by a patient or a family member.

Most family conferences ob-

served included all available people involved in a particular patient's care. Depending on their involvement with the family and/ or patient, this often would include several family members, the physician or physicians, the critical care nurse or nurses, a social worker and a chaplain. Twentyseven nurses (72%) supported the involvement of all those involved with a patient's case.

Several variables were identified as greatly affecting the decision-making process. The most significant variables were physicians' styles of dealing with patients and families on these issues. Twenty-nine critical care nurses (76%) believed that physicians' styles greatly affect the process.<sup>2</sup> Physicians' personal views on the subject also may dominate the process. A recent American Colseveral factors relevant to the family were observed during this study. In most of the cases observed, the patients were unable to participate in the discussion either because of incompetency or because they were unable to communicate effectively. In most cases, family members met to discuss the patient's condition and

the options available.

Several nurses surveyed identified the family's understanding of the information they are given as greatly affecting the individuals' reactions to the situation. The values of the family members and their views on death and dying also contribute to the dynamics of the discussion. Patients' and families' attitudes toward these issues may be partly derived from society's views on decisions about death and dying. A Wall Street

> Journal/NBC News telephone poll conducted from July 6 to 10, 1990, revealed that most of the 1,555 registered voters surveyed favored empowering the family of patients in a coma to end life support.4

The family obviously plays a central role in the decision-making process. Each family may introduce several variables and views that may affect the course of action, discussion and outcome. Since the family represents such a key part of the process, prior family discussion of the issue may make the decision-making process run more smoothly.

A look forward: Can the process be improved? Many difficult decisions to withhold or withdraw life support are

Since the family represents such a key part of the process, prior family discussion of the issue may make the decisionmaking process run more smoothly.

> lege of Chest Physicians/Society of Critical Care Medicine consensus panel recommended, "The health care team must recognize the influence of their own ethical. social, moral and religious values and their perceptions of these values in the patient to assure optimal delivery of care in a nonjudgmental fashion."3

A nursing administrator identified the family as the "driving force" within the process. While it is impossible to identify all the variables a family may bring into the discussions on life support,

made without conflict. However, questionnaires, interviews and clinical observation indicated that the process can be improved. One critical care nurse said, "There are several situations each year in our unit where families, patients, nurses and physicians are not in agreement about a decision." Clearly, health care providers may guide the process so it occurs as

smoothly as possible. Few people realistically anticipate having to make the difficult decisions concerning life support for a loved one. When it is clear that the decision must be made, many Americans are not equipped with the necessary knowledge, nor have they already carefully considered the issue. A critical care nurse concluded, "The health care consumer needs a more educated understanding of what life support measures are before we (health care providers) can expect them to be able to make decisions we feel are appropriate." This understanding must be cultivated by health care providers.

Health care providers should encourage people to deal with these issues with as much specificity and as early as possible. Discussions should be continued with more specific instructions as it becomes more clear which health care decisions a person may face. These discussions should occur between physicians and their patients and also within a family.

Physicians and nurses play key roles in decisions to withhold or withdraw life support. Communication skills and a willingness to deal with the issues and to discuss the question as early as possible cannot be underestimated. The interviews, questionnaires and clinical observations revealed that not all health care providers are able to deal with life support issues.

Legal tools in Indiana

If Nancy Cruzan had been in another state or in a different health care facility, few Americans would have heard of her. Her situation probably would have been resolved as most are - by the physician and the family. Unfortunately, the Supreme Court's decision in Cruzan does not clarify issues for individual states. Frankly, the state legislatures and courts have been handed the next move. Unlike Missouri, Indiana may give the family much latitude in these decisions, even when a patient has not expressed his or her health care wishes explicitly.

To help prevent a Cruzan scenario from occurring in Indiana, people should look to their physicians, families and existing legal tools. Indiana provides a general statutory framework for the issues involved in withdrawing and withholding life support. Under the Health Care Consent Law,<sup>5</sup> a competent person may designate a person to make his or her health care decisions when he or she becomes unable to do so. While Indiana law provides for other members of a family to make health care decisions when a patient is unable to do so, the appointment of a surrogate decision maker could lend greater credence to the decisions that the individual would make. The appointment of a health care representative also may reduce the possibility of a family dispute over health care decisions for a loved one. Instructions left with a surrogate decision maker may indicate to health care providers that the representative has the appropriate information to make

decisions the patient would have made if able.

Indiana's Living Wills and Life-Prolonging Procedures Act<sup>6</sup> follows the recognized policy that a competent adult may control decisions on his or her health care. A competent adult may execute a living will, allowing certain life-sustaining procedures to be withheld or withdrawn if he or she becomes terminally ill. Conversely, the life-prolonging procedures declaration ensures that those procedures will be administered. The execution of a living will provides civil and criminal immunity to health care providers who follow the terms of a living will in accordance with the act.

Indiana's living wills act has several explicit limitations, including the fact that the definition of "life-prolonging procedures" does not include the provision of appropriate nutrition and hydration, the administration of medication or the performance of any medical procedure necessary to provide comfort care or to alleviate pain. The living will does not take effect until the physician certifies that the patient will die within a short period of time and has a valid living will declaration. Finally, a living will or life-prolonging procedures declaration does not bind the physician to use, withhold or withdraw life-prolonging procedures. However, if the patient is qualified under the statute, the physician must transfer the patient to another physician who will honor the living will.

Although the Indiana living wills act has not been subject to judicial review, it has been criticized. Alone, it does not answer all health care questions. The appointment of a health care rep-

resentative allows the designated individual to make important health care decisions in the best interest of the appointer, who may or may not be terminally ill. While the health care representative's ability to direct the withholding or withdrawal of life support has not been clarified,<sup>7</sup> the combination of the appointment of a health care representative and a living will declaration could provide health care providers with some valuable insight into the values and wishes of the incompetent patient.

Indiana law, along with the Cruzan decision, leaves some legal questions unanswered. Since the Cruzan decision, continuing life support when a patient's wishes are clearly stated could possibly violate a constitutional right. However, a fact pattern supporting this contention is difficult to imagine. In Indiana, removing artificial nutrition and hydration from an incompetent patient may

become controversial.

The living wills act does not include the provision of nutrition and hydration as a "life-prolonging" procedure covered by the act, but the Cruzan decision and many experts say food and hydration may be considered no different than other medical procedures. It is uncertain if the legislature will acknowledge this fact by reconsidering the act's treatment of food and hydration. Even if the legislature does not act, Indiana has not yet explored the extent of a

health care representative's or public guardian's ability to request the removal of food and hydration. Does the act constitute Indiana's policy on food and hydration? Despite many unresolved questions, legal tools in Indiana many help physicians and families facing decisions on the life support issue.

#### Conclusion

Several variables affect decisions to withhold or withdraw life support. The most important include the physicians' approaches to discussions and the dynamics and characteristics of the families involved. Although some health care providers effectively guide discussions on life support, many could improve their approach by dealing with the question as early as possible and by improving communications with families and patients.

People may prepare for decisions by discussing the subject with physicians and their families and by using existing legal tools. General statements such as "If I can't be normal, pull the plug ..." should be discouraged as people educate themselves on the medical alternatives and possibilities available. Physicians and patients together should strive for understanding and specificity.

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This project was supported by the Midwest Cardiovascular Research Foundation and the law firm of Barrett & McNagny, Fort Wayne.

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# The role of the PRO \_physician adviser\_

Editor's note: This is the second article in a two-part series from Wayne Crockett, M.D., medical director of Sentinel.

As the largest external reviewer of hospital records in Indiana, Sentinel Medical Review Organization relies heavily on the services of active practicing physicians. The purpose of a utilization and quality control Peer Review Organization, or PRO, is to ensure the necessity, appropriateness, proper setting and correct diagnosis-related group (DRG) for services for which payment may be made by Medicare or the CHAMPUS program.

PROs routinely review services provided to Medicare and CHAMPUS beneficiaries by health care providers. Initial review of a case is performed by nurse reviewers who apply screening criteria to cases selected for PRO review. Nurses may resolve issues at that level, but may not issue adverse decisions such as a denial of payment or a confirmed quality of care problem. All such adverse review decisions, as well as the review of DRG changes other than technical issues, are made by qualified physician ad-

All physician advisers performing review for the PRO must be licensed doctors of medicine, osteopathy or dentistry who have an unrestricted license and acting admitting privileges in at least one hospital in the state.

When possible, Sentinel uses only physician advisers who are trained in the same specialty as the practitioner or services under review. Sentinel also tries to use advisers who practice in the same setting as the physician or provider whose care or service is being considered. The ability of a PRO to match urban physicians with urban and rural with rural and to match specialties is limited only by the number of physicians willing to participate in peer review.

In many situations, it is difficult to match all characteristics. For example, an osteopath who practices pediatric pulmonology in a rural setting would be virtually impossible to match. On the first round of review, the PRO's primary obligation would be to find another osteopath. If the case went to a second round of review, Sentinel would find an osteopath who specializes in internal medicine. In either instance, if unable to identify an osteopathic pulmonologist, the PRO would document this in the record, and the services of an M.D. pulmonologist would be made available to the osteopathic physician adviser, if requested.

The quality of the review is only as good as those who perform the review. Sentinel has about 200 physicians who are registered and trained to perform review services. Many perform reviews in their own homes or offices. The arrangements for offsite review are made between Sentinel and the individual physicians. Others come to the PRO office to participate in the review.

Additional physician participation is needed in certain specialties and geographical areas. Ideally, each hospital would have at least one physician participat-

ing in the review process. Areas of the state that have few or no reviewers include South Bend, Fort Wayne, Richmond and Columbus and several rural communities. New reviewers from the major urban centers of the state, such as Indianapolis and Lake County, are always welcome. Regardless of their location, all licensed physicians with active privileges are welcome.

Sentinel also can use the services of physicians in certain specialties. Psychiatrists, orthopaedic surgeons, cardiologists and gastroenterologists are needed.

Why should doctors evaluate care provided by their peers?

1. There are always a few physicians - a small minority - who should not be permitted to practice until deficiencies are satisfactorily addressed. Such deficiencies cannot be addressed until identified, and only a peer can do so. Whether review is performed with a hospital committee, specialty society or an organization such as a PRO, patient protection should always be the foremost reason for such activity.

2. The PRO is a physician-directed organization. Unlike other regulatory and/or cost-containment efforts, participation in the PRO activities provides doctors an opportunity to have a voice in shaping the focus and methods of review. In so doing, the physician can strive to ensure fairness in the process and proper policies on necessity and appropriateness of particular approaches to medical or surgical intervention to resolve specific health conditions.

3. Each hospital, including its

administrative leadership and medical staff, must cope with external review by a PRO. Many have attempted to cope merely by contracting for services from one or more of the many consultants who provide advice on this issue. Some of these consultants are knowledgeable, and Sentinel works with them, when asked, to enhance their ability to provide accurate information. Sentinel

believes, however, that there is no substitute for the insight and good advice provided by a local physician who has participated in and understands the PRO review process

4. Many physician advisers say they become better doctors through review. Physician advisers see examples of excellent documentation and poor documentation of care. They observe

various approaches to similar conditions and situations and thus gain new insights about how to best care for their own patients.

Physicians interested in learning more about the peer review process and how they may participate may contact the Medical Director of Sentinel, 2901 Ohio Blvd., Terre Haute, IN 47803, (812) 234-1499.



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# Missed diagnosis results in tragedy.

Editor's note: This article is reprinted with permission of Norcal Mutual Insurance Company and was submitted by Physicians Insurance Company of Indiana. Names and circumstances have been changed to protect confidentiality.

Errors in diagnosis are the second most frequent cause of malpractice claims among all medical specialties, just behind improper performance of a procedure. A Physicians Insurers Association of America study of 41,583 closed claim files through the period Jan. 1, 1985, to June 30, 1989, indicates 18.7% of the claims were based upon errors in diagnosis. Some specialties that have a higher-than-average percentage of diagnosis-related problems are illustrated in the *Table*.

The following case illustrates a missed diagnosis that could have been caught if communications had not broken down among the medical team.

#### Case illustration

Mr. Kirchner, a 60-year-old man, awoke one morning with pain in his back and stomach radiating to his right testicle. By 8:30 a.m. the pain was so severe that his wife called Dr. Furst, who had been his primary care physician for 10 years. Dr. Furst advised him to go directly to the emergency room (ER); she would call and advise the ER that he was on his way.

The following is a brief record of Mr. Kirchner's hospital stay.

9:30 a.m. – Mr. Kirchner and his wife arrive in the ER. A nurse fills out the top section of his ER sheet, noting his present medica-

tions as Corgard, Persantine, ASA, Valium and Tambocor. His only

allergy is to IVP dye.

9:55 a.m. – Mr. Kirchner is examined by the ER physician, Dr. Sanders. Dr. Sanders' patient history notes indicate pain in the right flank, groin and right testicle; nausea; diaphoresis; no vomiting; and no GU symptoms. Also noted is a past history of kidney stones and gout, no trauma. The physical exam indicates an alert, diaphoretic patient. The abdomen is obese and non-tender, and the rectal exam is negative. There is no costovertebral angle tenderness, and the lungs are clear.

10 a.m. – Mr. Kirchner is given IM Demerol and Vistaril. Microscopic urinalysis shows 10-20 red blood cells and 0-2 white blood cells. No other diagnostic

tests are ordered.

10:40 a.m. – A "keep open," saline IV is ordered. The patient's blood pressure drops, possibly in response to the Demerol. IV morphine is ordered, to be titrated with the blood pressure by intermittent injection. Mr. Kirchner's blood pressure improves.

10:45 to 11:40 a.m. – The nurse's notes indicate that Dr. Sanders examined Mr. Kirchner during this time; no note of an exam is indicated in the physician

records.

During the next 70 minutes, Mr. Kirchner's pain persists, his vital signs are normal, and Dr. Sanders orders morphine as needed for pain. Dr. Bruce, oncall for Dr. Furst, agrees to admit Mr. Kirchner with a working diagnosis of kidney stones. Although Mr. Kirchner's past hospital records are available, no one

reviews them.

12:40 p.m. – The patient is admitted to a regular ward under the care of Dr. Bruce, who becomes the physician of record. Dr. Furst is identified as his regular physician. Past medical history is documented on the nursing admitting information as including a coronary bypass operation and a prior heart attack, along with an allergy to IVP contrast. Mr. Kirchner is still in pain, slightly relieved by the medications from the ER.

1:15 p.m. – Dr. Bruce telephones initial admitting orders consisting of regular diet, continue pain medications Demerol

and Phenergan.

1:30 p.m. – Mr. Kirchner complains of unbearable right flank pain and the Demerol as ordered is questioned by the nurse. Dr. Reynard, the hospital on-call physician, changes the order to morphine.

2:15 p.m. – Morphine is administered. Dr. Reynard has a nurse call the patient's home to find out what medications Mr. Kirchner is taking and orders

them continued.

3:45 p.m. – Dr. Reynard orders medications per Mr.
Kirchner's list from home: aspirin, Persantine, Tambocor,
Corgard, Zyloprim, Oretic,
Valium, Surfax and nitroglycerin.

5:30 p.m. – Mrs. Kirchner comes to the nursing station very upset. She asks when her husband will be seen by a urologist and is worried that Mr. Kirchner's heart will not stand the stress of his pain. She demands to speak to Dr. Bruce, and Dr. Reynard calls Dr. Bruce.

5:40 p.m. – Dr. Bruce tells Mrs. Kirchner that she is unable to come to the hospital to see Mr. Kirchner for another hour because she is tied up at home. Mrs. Kirchner is extremely upset and demanding to have her husband seen by a doctor. She asks why Mr. Kirchner is not on a cardiac ward and why he has not been seen by the urologist. Dr. Bruce says she will get to the hospital as soon as she can.

While Mrs. Kirchner is on the telephone with Dr. Bruce, Mr. Kirchner is found unresponsive with no vital signs. A Code Blue is called, but after 40 minutes of resuscitative efforts, Mr. Kirchner is pronounced dead. The autopsy reveals the cause of death as a ruptured abdominal aortic aneurysm due to atherosclerosis of the aorta

#### What caused the missed diagnosis?

Several factors contributed to the diagnosis error, including inattention to the patient's previous history, lack of communication between doctors, little communication with the patient's family, lack of diagnostic testing to confirm or refute the diagnosis and no one doctor taking responsibility for

the patient's care.

Mr. Kirchner has been under Dr. Furst's care for 10 years. She had treated him for problems including angina, hypertension, gout and hyperlipidemia. She knew Mr. Kirchner's medical history in detail, yet she did not follow up with a phone call to the ER, as promised. A phone call from the private physician to the ER with a brief history of significant medical problems and any concerns about the patient helps familiarize the emergency physi-

#### Table

#### Claims based on errors in diagnosis percentages by specialty -

Emergency medicine	36%
General/family practice	
Gastroenterology	28%
Pediatrics	27%
Internal medicine	25%
Cardiology & cardiovascular surgery	21%

cian with a patient he or she has never seen before.

Dr. Sanders' ER chart indicated that Mr. Kirchner was taking medications used to treat angina, hypertension and cardiac arrhythmias, but Dr. Sanders never documented any discussion of those problems. Major medical conditions should always be documented as a routine part of the patient's history.

Chart notes indicated an allergic reaction to x-ray contrast, yet there was no documentation in the ER record of when or why the prior test was done or the severity of the reaction. Although the old records were requested, they were never reviewed. Had they been, Dr. Sanders would have realized Mr. Kirchner was a high-risk vascular patient. The absence of important medical history and other pertinent details can severely limit the scope of diagnostic possibilities in a patient's evaluation.

Both Dr. Sanders and Dr. Bruce considered Mr. Kirchner's symptoms indicative of kidney stones. However, no further diagnostic studies were ordered, either to rule out kidney stones or to check for complications. It appears that both physicians proceeded upon the assumption of a

diagnosis without regard to the patient's history or available methods of definitive testing, such as ultrasound or other non-contrast radiological tests. The absence of further diagnostic tests indicates a lack of attention to available information about the patient. In this case, there was a failure to manage the patient's work-up appropriately.

Although Mrs. Kirchner was extremely agitated and concerned about her husband's heart because of his extreme pain, no one appeared to take her seriously. She could not get a physician to see Mr. Kirchner, despite his contining pain and her conerns. When she finally spoke with Dr. Bruce by telephone, the doctor seemed unconcerned with Mr. Kirchner's problems. It is extremely important to address the questions and concerns of a patient's family, both to reassure the patient and family members and because a family member may often supply important information that is unavailable otherwise.

Finally, there is the issue of which doctor was responsible for directing Mr. Kirchner's care. The three physicians most involved in the case, Dr. Furst, the primary

care physician; Dr. Sanders, the ER physician; and Dr. Bruce, the admitting physician, did not communicate among themselves regarding the patient's course and care. In addition, none of them took charge of assuring that appropriate care was given. The medical record indicates several physicians relied upon a diagnosis that was presumed correct, with no one physician taking responsibility for follow-up.

Physicians must take the initiative in communicating among themselves to assure that patients are followed and managed appropriately, particularly when there

are several physicians working on a case. One physician should assume responsibility for followup and coordination of necessary testing and referral. The treating physicians should specifically agree among themselves and appoint one physician to orchestrate treatment.

Diagnosing aortic aneurysms
Abdominal aortic aneurysms can
be very difficult to diagnose, particularly in an obese patient.
Whenever a patient presents with
back pain radiating to the abdomen or groin, abdominal aortic
aneurysm should be suspected

and ruled out through diagnostic imaging studies, such as ultrasound or computed tomography scan.

Abdominal aortic aneurysm risk factors are the same as those for arteriosclerotic disease, and include abdominal and low back or flank pain, history of smoking, hypertension, diabetes and/or family history of aneurysm.

Abdominal aortic aneurysms produce symptoms similar to those of diverticulitis, gastroenteritis, appendicitis, back pain and kidney stones.

# auxiliary report

### Ann Wrenn ISMA Auxiliary

Increasing help is being given to impaired physicians not only in Indiana, but across the country. This help involves the processes of identification, intervention, treatment, rehabilitation and monitoring of physicians with alcohol and drug problems.

Although there is no clear evidence that the actual incidence of impairment is increasing, it is conceivable because of the increasing pressures on physicians.

The ISMA and its auxiliary encourage all members to become aware of the nature of the problems associated with impairment and the services that we should provide to our impaired colleagues.

Indiana law is specific about the legal liability of a physician for his or her impaired peer. Once an impaired behavior problem has been identified, it falls to medical peers or hospital administrative staffs to initiate an immediate investigation to reduce the possibility of risk to the general public or patients.

The ISMA Auxiliary strongly believes that alcohol and drug abuse problems in the medical family must be addressed. This year, the auxiliary is asking each county to provide a program on impairment to its members. Only through education and increased awareness can we begin to understand and overcome the devastation caused by impairment.

Success of the Commission on Physician Assistance program depends on the following:

1. Understanding the diseases of alcoholism and drug addiction.

2. Raising our awareness of the incidence and prevalence of alcoholism and drug addiction.

3. Intervening when diagnosis is suspected.

4. Following intervention

with referral for appropriate treatment.

5. Continuing to monitor after primary treatment.

6. Willingly referring those who refuse and fail treatment to the Medical Licensing Board of Indiana.

7. Cooperating with the Medical Licensing Board of Indiana and the attorney general's office after referral, when indicated.

The cause, solution and scope of the physician impairment problem are known. The ISMA has established a program with goals and methods designed to minimize and/or resolve this problem. Our personal commitment, support and involvement will help determine the results.

For further information on educating your county auxiliary on physician impairment, contact Candace Backer, ISMA physician assistance coordinator, (317) 925-7545 or 1-800-969-7545. □

John G. Pantzer Jr., M.D. Indianapolis

I read with much interest the article in the May 1990 INDIANA MEDICINE concerning "Port-wine stain: A new therapeutic approach to an old birth defect" and the subsequent paper on the same therapeutic modality. The authors are to be complimented on letting us know that this machine is available and that they are using it.

There are several things that should have been included in the discussion. The authors' comments that discount previous modalities for treatment may be premature. The argon laser has been successful in anywhere from 60% to 80% of treated patients, and there simply is not enough evidence to show whether the tunable dye laser will prove more, or even equally, efficacious. The authors themselves stated a percent of clearing ranges from 25% to 90%. This clearly suggests a more guarded approach be taken of the analysis of this newer tool.

There has been little national clinical experience with this newer laser, and until this type of information is available, one must be extremely critical of claims with regard to lack of complications such as scarring. It will be necessary to evaluate a number of postoperative adults and children before concluding that scarring is not seen with the use of the tunable dye laser.

The absence of pre- and postoperative photographic documentation is disappointing since it is standard practice to show identical pre- and postoperative photographs to document laser efficacy for cutaneous lesions.

The authors fail to mention

surgical modalities, including flap rotation, fractional excision and, most recently, the use of tissue expansion to generate additional normal skin for the replacement of involved areas.

The use of the phrase "selectively eliminate port-wine stains" creates unduly high expectations. I think few patients would be happy carrying their photomicrographs to show the changes. INDIANA MEDICINE should have an editorial policy of not publishing clinical studies without one or two results representing the spectrum of improvement that could be hoped for with any modality.

Correspondence: John G. Pantzer Jr., M.D., 1801 N. Senate Blvd., Suite 735, Indianapolis, IN 46202.

Bibliography personal communication: Mary H. McGrath, M.D., professor of surgery, chief, Division of Plastic and Reconstructive Surgery, George Washington University Medical Center, chairman of Georgetown Laser Annual Course for Plastic Surgeons.

#### Authors' reply

Robert M. Hurwitz, M.D. Robert E. McCallister, M.D. Indianapolis

We received the letter by John Pantzer, M.D., regarding our article "Port-wine stain: A new therapeutic approach to an old birth defect" and graciously accept his compliment on making Indiana physicians aware that the new dermatologic pulsed dye laser is available at St. Vincent Hospital in Indianapolis and that

we are using this noninvasive treatment regimen with great success.

However, it's apparent that he is concerned with "several things that should be included in the discussion." We would appreciate the opportunity to respond and clarify. Or, as the proverb states, "speak fitly or be silent wisely."

First, Dr. Pantzer states that we discounted previous modalities, i.e., the argon laser. On the contrary, in the first paragraph on page 339, we discuss this laser in detail and its well-known adverse effect of hypertrophic scarring, especially in some critical areas, namely the perioral region, side of the mandible, neck, extremities and children (40%).<sup>2</sup>

Second, he states "that there is little national clinical experience with this newer type of laser."
But, the first paragraph on page 339 offers references regarding national clinical experience in abundance by dermatologists from other medical centers, e.g., Boston, Chicago, New York. In fact, the concept of selective photothermolysis for the treatment of port-wine stain hemangioma was conceived by dermatologists Anderson and Parrish at Harvard University in Boston. T

Third, he decries, "The absence of pre- and postoperative photographic documentation is disappointing since it is standard practice to show identical pre- and postoperative photographs to document laser efficacy for cutaneous lesions." However, pages 337 and 338 clearly illustrate both clinical and histopathological changes before and after one localized treatment area with the dermatologic pulsed dye laser on a nodular, raised, dark blue-



Figure 1A



Figure 2A



Figure 1B

Figures 1A & 1B: Forty-two-year-old white woman with dark blue-purple raised port-wine stain hemangioma of her face and neck before and six months following two treatments of selective photothermolysis with the flashlamp-pumped tunable dye laser. No scarring and 90% clearing are evident.



Figure 2B

Figures 2A & 2B: Forehead of a 6-week-old white female before and six weeks after one treatment of selective photothermolysis with the pulsed dye laser. Ninety percent resolution of the port-wine stain hemangioma is clearly noted with no clinical evidence of scarring.

purple port-wine hemangioma that had been present on the arm for 67 years. The photomicrographs are from the same patient and the identical location to emphasize the dramatic and nontraumatic changes in the skin after only one treatment.

We were fortunate to illustrate not only the clinical changes but also the histopathologic changes that result from only one treatment with the pulsed dye laser by choosing this particular example of a port-wine stain hemangioma involving the extremity. Certainly, this is an opportunity not generally afforded the clinician when treating a port-wine stain hemangioma on the face, due to the lack of acceptance by the patient to have this area biopsied. In our opinion, presenting clinical as well as histopathologic evidence of the effects of the pulsed dye laser is certainly more accurate and clearly more scientific.

Fourth, he expresses his concern regarding "unduly high expectations to selectively eliminate port-wine stain." On pages 337 and 339, paragraphs one and three, respectively, we emphasize that in our studies, as noted in previous national studies, that multiple treatments are the rule and that one may expect a range of 25% to 90% clearing after each treatment session, to underscore the variability of responses to the pulsed dye laser, and to de-emphasize that it is always 100% effective; but, scarring is almost negligible, especially in children. Nevertheless, many cleared completely after multiple treatment sessions (Figures 1 and 2).

Fifth, he questions the significance of the pulsed dye laser for port-wine stain hemangioma because we did not list other surgical techniques that we think are

questionable, at best, for this condition, even though we aptly listed eight other modalities that have fallen into disuse because of their ineffectiveness or poor results with significant scarring.

Last, he criticizes INDIANA MEDICINE's editorial policy for publishing an article that he feels is unworthy, truly a turnabout from his opening complimentary statement. We disagree and applaud INDIANA MEDICINE's editorial board for its foresight. Who could say it better than Sir William Osler, whose favorite line from Carlyle says, "Our main business is not to see what lies dimly at a distance, but to do what lies clearly at hand."8

Correspondence: Robert M. Hurwitz, M.D., St. Vincent Professional Building, 8402 Harcourt Road, Suite 830, Indianapolis, IN 46260.

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#### Additional comments

C. William Hanke, M.D. Indianapolis

With all due respect to Dr. Pantzer, his concerns do not reflect the current practice of laser surgery in the specialty of dermatology. At the Indiana University Medical Center, we have been using the argon laser since 1985 and the pulsed dye laser since 1989 to treat port-wine hemangiomas. After treating hundreds of children and adults, we have seen patients who had been treated previously by plastic surgeons with primary excision, flaps and skin grafts. These patients usually are scarred and leave much to be desired in terms of good functional and cosmetic results. This was the manner in which port-wine hemangiomas were treated many years ago.

The argon laser was an advance in the treatment of portwine hemangiomas and allowed many patients to be helped. I have had a number of patients in whom the skin has returned to an entirely normal color following argon laser surgery. However, a perfect result like this is the exception. If a patient who has been treated with argon laser is examined closely, a permanent pigmentary alteration and skin textural changes usually are present. In addition, 1% to 5% of patients treated with the argon laser develop scarring.

The pulsed dye laser has been an even more impressive advance. The laser was developed by der-

matologists at Harvard University specifically to treat cutaneous vascular lesions. All of the research in this area was done by dermatologists, and almost all of it has been published in the dermatology literature. Most of the 150 pulsed dye lasers in operation are in dermatology departments at university medical centers. Because of the 585 nanometer wavelength and the 360 microsecond pulse duration, the laser light targets the dermal blood vessels without damaging the surround-

ing structures. The U.S. Food and Drug Administration-approved pulsed dye laser can clear portwine hemangiomas in children and adults without scarring, hypopigmentation or textural changes.

On the negative side, the pulsed dye laser is an extremely temperamental piece of medical technology. It breaks down regularly, and patients sometimes need to be rescheduled. Multiple treatments usually are required, but the hemangiomas fade with

each treatment. In spite of the technological difficulties, the effectiveness of the laser is proven. Additional lasers are being developed to treat additional dermatologic problems.

Correspondence: C. William Hanke, M.D., Professor of Dermatology, Pathology and Otolaryngology, IU Medical Center, 1100 W. Michigan St., Dermatology – Regenstrief 524, Indianapolis, IN 46202.

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John Lanman, M.D. Munster, Ind.

Medical insurance is not the same as prepaid medicine. Those, who would sell prepaid medicine would have us believe this. "Those" refers chiefly to the politicians who want socialized medicine and insurance companies. Insurance companies favor prepaid medicine because their income is based on a percentage of the gross. The more money spent on medical care, the higher their profits.

There is a third group that I usually would not consider socialistic. That group is the Subcommittee on Insurance of the Indiana State Medical Association. Usually the subcommittee meets early in January to decide the rates for the next year, which begins April 1 every year. This year, the subcommittee did not meet. Lincoln

Life, our carrier, wanted more time to get more information about medical usage trends, so they could better estimate the costs for the coming year. A telephone conversation was held by Rick King, executive director, with the other members of the committee, including Alfred Cox, M.D., Charles Aust, Sr., M.D., Lowell Foster, M.D., and Francis Price, Jr., M.D. He did not talk with me.

Mr. King and the other members of the committee had three options. Lincoln Life recommended an overall increase of 24.6% for all plans. The second option was to increase all plans 25.5%, except Plan 4 (the \$2,000 deductible plan), which would experience no increase. The third option was to increase the plans as follows: Plan 1 (\$100 deductible) 27.2%; Plan 2 (\$500 deductible) 32.5%; Plan 3 (\$250 deductible) 15.4%; Plan 4 (\$2,000 deductible) 2.5%; Plan 5 (\$250 deductible)

with precertification) 0%; Plan 6 (\$100 deductible with precertification) 10%; and Plan 7 (\$1,000 deductible) 10.2%.

Plan 4 and Plan 7 are large deductible policies. In the six years that Plan 4 has existed, it has made enough money to pay the 1989 premiums by itself, even though there are more bodies insured in 1989 than were insured in 1985. Plan 7 is too new to draw any sweeping conclusions, but I suspect the trend is about the same.

It is time the Subcommission on Insurance, as well as the ISMA Board of Trustees, began to encourage "medical insurance" rather than "prepaid medicine." It also is time for Plan 2 to stop getting a free ride.

Hopefully, next year, those responsible will be thinking and leading instead of following.

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	Plan 1 (100 d)		1	Plan 2	Pla	n 3	Pla	in 4	Pla	n 5	Pla	n 6	Pla	an 7
			(100 d)		(	500 d)	(25)	0 d)	(2,00	00 d)	(250	d + p)	(100 d	+ p)
	Insured	ds \$	Insure	ds \$	Insureds	\$	Insureds	\$	Insureds	\$	Insureds	\$	Insureds	\$
1985	1,590	(113,180)	1,808	84,614	780	50,960	33	23,985	-	_	-	_	_	_
1986	1,426	138,316	2,033	(81,208)	607	118,701	4()	39,857	109	62,356	-	-	-	_
1987	1,460	261,396	2,157	(492,497)	616	72,374	58	28,455	114	54,184	_	-	-	_
1988	1,463	96,985	2,237	(780,370)	562	47,674	83	(21,296)	276	72,501	-	-	-	_
1989	1,487	111,498	1,978	144,431	618	46,438	275	190,197	328	33,271	34	6,188	_	_
12/89	1,407	(7,953)	1,638	(473,976)	637	91,805	256	70,450	413	117,136	76	45,822	497	484,054
Total		487,062		(1,599,006)		427,952		331,648		339,448		52,010		484,054

Plan 6 was not begun until 1988. Plan 7 was not begun until 1989. The monetary figures represent the amount of money paid into the plans minus the amount of money paid out, including expenses, for the years represented (d=deductible, p=precertification). Numbers in parentheses represent a loss.

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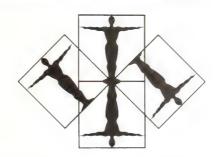
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## obituaries

#### Efren V. Aruta, M.D.

Dr. Aruta, 48, a Danville radiologist, died Sept. 1 in an automobile accident in Worcester, Mass.

He was a 1965 graduate of University of Santo Tomas Medical School in the Philippines.

Dr. Aruta was on the staff at Hendricks Community and Putnam County hospitals. He had been associated with Hendricks County Radiology, Inc., since 1976.

#### Floyd A. Boyer, M.D.

Dr. Boyer, 86, a retired Indianapolis family physician, died Sept. 10.

He was a 1932 graduate of the Indiana University School of Medicine.

Dr. Boyer was instrumental in the building of Community Hospital in Indianapolis and was elected first chief of staff when the hospital opened in 1956. He served on the hospital's board of directors for several years. He was president of the Marion County Medical Society in 1960 and president of the Indiana Academy of General Practitioners in 1958. In recognition of his contributions to Community Hospital, he was one of eight physicians inducted by his colleagues into the Fellowship of Distinguished Physicians in 1988. He was a member of the ISMA Fifty Year Club.

#### Russell A. Flack, M.D.

Dr. Flack, 88, formerly of Lafayette, died Aug. 29 at his home in Los Angeles, Calif.

He was a 1926 graduate of Northwestern University Medical School and a Navy veteran of World War II.

Dr. Flack practiced internal medicine in Lafayette from 1929 until his retirement in 1969. He was on the staffs of Home and St. Elizabeth hospitals.

#### Walter D. Griest, M.D.

Dr. Griest, 69, a Fort Wayne pathologist, died Aug. 20 at his home.

He was a 1944 graduate of the University of Cincinnati College of Medicine and an Army Medical Corps veteran of World War II.

Dr. Griest was chief pathologist and director of laboratories for Lutheran Hospital for 39 years. He was a member of the Indiana Association of Pathologists.

#### Marcelino F. Guzman, M.D.

Dr. Guzman, 76, Morocco, Ind., died Aug. 16 at Our Lady of Mercy Hospital in Dyer.

He was a 1941 graduate of the College of Medicine, University of

the Philippines.

Dr. Guzman was a family physician in Morocco from 1962 until his retirement in 1985. He was a member of the International Conference of Chest Physicians and the Abdominal Physicians Association and served as Newton County health officer for 10 years.

#### Walter A. Laudeman, M.D.

Dr. Laudeman, 96, a retired Elwood physician, died Sept. 10 in Mount Vernon, Ohio.

He was a 1926 graduate of the Indiana University School of Medicine and an Army veteran of World War I.

Dr. Laudeman was a family practitioner in Elwood for 53 years, retiring in 1979. He delivered nearly 3,800 babies during that time. He served as the last health officer for Elwood and as Madison County coroner.

#### Harold T. Moore, M.D.

Dr. Moore, 81, a retired anesthesiologist, died Sept. 20 in Manor House in Noblesville.

He was a 1936 graduate of the Northwestern University Medical School and an Army Air Forces veteran of World War II.

Dr. Moore retired in 1982 after 32 years of practice. He was on the staff at Methodist Hospital in Indianapolis from 1950 to 1977 and at Riverview Hospital in Noblesville from 1977 to 1982.

#### Henry G. Nester, M.D.

Dr. Nester, 87, former public health director for Indianapolis and Marion County, died Sept. 15.

He was a 1949 graduate of the Indiana University School of Medicine and an Army Air Forces veteran of World War II.

Dr. Nester was public health director from 1951 to 1970. Previously, he worked in cytology at IU and from 1929 to 1942 was on the Butler University faculty. For two years, he was in private practice and an industrial physician at the Chevrolet and Allison divisions of General Motors Corp. He had been president of the American Association of Public Health Physicians.

#### Wayne L. Ritter, M.D.

Dr. Ritter, 82, a retired Indianapolis internist, died Aug. 30 in an automobile accident.

He was a 1934 graduate of the Indiana University School of Medicine and a veteran of World War II.

Dr. Ritter had an internal medicine practice for 40 years and was one of eight members of his family to practice medicine in Indiana. He had served as a professor of medicine history at the IU School of Medicine. He was a

## obituaries

founder of the Great Books Society in Indianapolis.

#### Avelino T. Sales, M.D.

Dr. Sales, 56, Carmel, died Sept.

He was a 1959 graduate of the Institute of Medicine, Far Eastern University, Philippines.

Dr. Sales was an anesthesiologist at Methodist Hospital in Indianapolis for 16 years and retired in April.

#### John S. Schechter, M.D.

Dr. Schechter, 75, a retired Indianapolis internist, died Sept. 17 at St. Vincent Hospital in Indianapolis

He was a 1942 graduate of the Indiana University School of Medicine and served as an Army surgeon during World War II.

Dr. Schechter retired in 1981, after practicing 33 years. He was

a member of the American College of Physicians.

#### William E. Schoolfield, M.D.

Dr. Schoolfield, 86, a retired Orleans family practitioner, died Aug. 8 at Orange County Hospital in Paoli.

He was a 1930 graduate of the Indiana University School of Medicine.

Dr. Schoolfield practiced in Orleans from 1931 to 1984 and delivered between 4,500 to 5,000 babies. He was a member of the first welfare board in Orange County and a past member of the Orleans Town Board and the Orleans Community School Board.

#### Joan H. Wood, M.D.

Dr. Wood, 38, Bloomington, formerly of Indianapolis, died Sept. 15.

She was a 1983 graduate of

the Indiana University School of Medicine.

Dr. Wood was a physician for Emergency Care Physicians in Bloomington and a consultant for Genetic Consultation Services at IU. She was a clinical assistant professor of medical genetics for IU's medical science program.

#### Joseph P. Worley, M.D.

Dr. Worley, 73, a retired Indianapolis family practitioner, died Sept. 4 in Community Hospital North.

He was a 1942 graduate of the Indiana University School of Medicine and an Army Medical Corps veteran of World War II. He received a Silver Star, two Bronze Stars and a Purple Heart.

Dr. Worley was in private practice for 40 years. □

#### Memorials: Indiana Medical Foundation

The Indiana Medical Foundation Inc., was formed by the Indiana State Medical Association "for religious, charitable, scientific, literary or educational purposes." It provides financial assistance to support the educational mission of Indiana medicine. Contributions made to the foundation are deductible by donors in accordance with the Internal Revenue Code. Gifts are deductible for federal estate and gift tax purposes.

The foundation is pleased to acknowledge the receipt of gifts in remembrance of the following individuals:

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## people



Dr. Edward Ross of Indianapolis was named chairman of the cardiovascular disease section at Methodist

Hospital in Indianapolis; he also is the director of cardiovascular patient care programs and director of the hospital's cardiovascular center.

Dr. Michael D. Bishop of Bloomington received the James D. Mills Award for Outstanding Contribution to Emergency Medicine from the American College of Emergency Physicians; he is president and chief executive officer of Emergency Care Physicians.

Drs. David B. Goldenberg and Larry L. Heck, both of Indianapolis, were named fellows of the American College of Radiology during the group's annual meeting in Nashville, Tenn.

Dr. Stephen W. Perkins, an Indianapolis facial plastic surgeon, was selected Midwestern region vice president of the American Academy of Facial Plastic and Reconstructive Surgery.

Dr. David R. Pennes, a musculoskeletal radiologist at Methodist Hospital in Indianapolis, was an invited lecturer at the Third Annual Comprehensive Review Course in Hand Surgery, sponsored by the American Society for Surgery of the Hand and held in Dallas.

**Dr. Russell L. Judd** has relocated his urology practice to a private office at 6635 E. 21st St., Indianapolis.

Dr. David A. Fisher, an orthopaedic surgeon, has been named director of the Bone and Tissue Bank at Methodist Hospital in Indianapolis.

#### Physician Recognition Award recipients

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Arab, Mohammad K., LaPorte Ayers, Johnnie, Kokomo Callon, Robert A. Jr., Indianapolis Cortese, Thomas A. Jr., Indianapolis Cottrell, Robert F., Fort Wayne Daftary, Mostafa, Greensburg Herring, Malcolm B., Indianapolis Hoover, Rick L., South Bend Johnson, C. William, Indianapolis Manders, Karl L., Indianapolis Moores, William B., Indianapolis Moss, Michael M., Vincennes Musngi, Luciano P., Pendleton Schneider, Lawrence F., Columbus Sepehri, Bahram, New Albany Stegemoller, Ronald K., Danville Tubergen, Laverne B., Indianapolis Winters, Peter L., Indianapolis

Dr. George B. Plain, St. Joseph County health officer, received the Yater Award for outstanding service, contributions and accomplishments to the group practice of medicine; the award was presented at the American Group Practice Association's annual conference in Orlando, Fla.

Dr. Mark A. Hochstetler has been named central region medical director, Market Group II, of Lincoln National Life Insurance Co. of Fort Wayne; he is responsible for provider relations activities, including quality assurance, utilization review and provider credentialing.

**Dr. Thomas Peters**, an invasive cardiologist with a special interest in interventional cardiology, joined Nasser, Smith and Pinkerton Cardiology of Indianapolis.

**Dr. David J. Need** of Indianapolis has been elected president of the Indianapolis Medical Society.

**Dr. Lindley H. Wagner**, a Lafayette internist, has been reappointed by Gov. Evan Bayh to the

Indiana Veterans Home advisory committee for a second four-year term.

Dr. Daniel J. Combs, a Vincennes internist, was honored by Lincoln High School for his 20 years of service as the team doctor; he stepped down this year after service to more than 6,000 high school athletes.

Dr. Patricia A. Keener, an Indianapolis pediatrician, received the Isidore Feibleman Woman of the Year Award from the Indianapolis B'nai B'rith Lodge 58; she is chief of pediatrics at Wishard Memorial Hospital and the medical adviser to the Indianapolis Campaign for Healthy Babies.

Dr. Marvin E. Priddy has been named associate director of the Family Practice Residency Program at Parkview Memorial Hospital in Fort Wayne. Dr. Mark A. King was named coassistant director of the program at Lutheran Hospital in Fort Wayne.

Dr. Randall L. Stevens was named associate director of the family practice residency program

## people

at Union Hospital in Terre Haute.

**Dr. William B. Skaggs**, director of St. Mary's OB/GYN Clinic in Evansville, received the Arthur H. Griep Mentor Award. □

New ISMA members William J. Berg, M.D., Beech Grove, cardiovascular diseases.

V. Paul Bertrand, D.O., Crown Point, neurology.

**D. Craig Brater**, M.D., Indianapolis, internal medicine.

**Stephen J. Datena**, M.D., Indianapolis, general surgery.

**Bhalehandra K. Dave**, M.D., Princeton, urological surgery.

David R. Decatur, M.D., Indianapolis, family practice.

John A. DeSanto, M.D., India-

napolis, internal medicine. **Douglas D. Doctor**, M.D.,

South Bend, obstetrics and gyne-

South Bend, obstetrics and gynecology.

Himanshu V. Doshi, M.D., Munster, diagnostic radiology.

**Robert G. Fleming**, M.D., Richmond, cardiovascular diseases.

**Bruce D. Fowler**, M.D., Evansville, family practice.

**Alvin P. Griffith**, M.D., Bloomington, psychiatry.

Martin E. Gryfinski, M.D., South Bend, neurology.

Jeffrey L. Haist, M.D., Richmond, cardiovascular diseases.

Lois E. Ham, D.O., Elkhart, psychiatry.

**Marvin S. Haswell**, M.D., Richmond, obstetrics and gynecology.

**Herman P. Hovin**, M.D., Syracuse, plastic surgery.

Thomas D. Hughes, D.O., Beech Grove, cardiovascular diseases.

**Ronald Jensen**, D.O., Granger, emergency medicine.

Louis Kastan, M.D., Huntingburg, radiology. Imad E. Khadra, M.D., Lafayette, internal medicine. John E. Kieffer, M.D., Bloomington, child psychiatry. Jong H. Kim, M.D., Merrillville, family practice.

**Richard J. Kovacs**, M.D., Indianapolis, cardiovascular diseases.

**Jong-Yuan Kuo**, M.D., Darien, Ill., nuclear medicine.

Yongsoo Kwon, M.D., Wabash, general surgery.

**Barbara J. LaForrest**, M.D., Goshen, psychiatry.

O.H. Lee-Johnson, M.D., Gary, general surgery. Meth Linwong, M.D.,

Merrillville, ophthalmology.

Rodney C. Lovett, M.D., In-

dianapolis, general surgery.

Peter McDonald, M.D.,
Bloomington, emergency medicine.

Rajan I. Metha, M.D., Bloomington, internal medicine. Edward N. Moore, M.D., Evansville, cardiovascular diseases.

LeeAnne M. Nazer, M.D., Indianapolis, family practice. David B. Neff, M.D., Rockport, family practice. Marilynn H. Price, M.D., Spencer, internal medicine. Warren L. Ralph, M.D.,

Bloomington, family practice.
Stanley D. Reed, M.D., Indianapolis, internal medicine.

Judith A. Robinson, M.D.,



Two northwest Indiana cardiovascular surgeons, Victor O'Yek, M.D., and Philip S. Chua, M.D., spearheaded the Second Joint U.S.-China Cardiovascular Exchange to the First Teaching Hospital of the Beijing Medical University in Beijing. The complete cardiovascular team, who performed coronary bypass together with their Chinese counterparts, were in China's capital from July 1 through 14. The medical expedition was composed of Larry Beishline, Dr. O'Yek, Cheryl Jordan, Arun Goel, M.D., Barbara Mills, Benedicto Bautista, Ione Spurling, and Dr. Chua. The First Joint Cardiovascular Exchange in September 1988 was headed by the same surgeons.

## people

Indianapolis, obstetrics and gynecology.

J.R. Sarpa, M.D.,

Bloomington, otolaryngology.

John M. Spargo, M.D., Evansville, diagnostic radiology.

Derek T. Sprunger, M.D., Indianapolis, ophthalmology.

Louis F. Star, M.D., Carmel, obstetrics and gynecology.

Casimir R. Starsiak, D.O., Indianapolis, orthopaedic surgery.

Khutb M. Uddin, M.D., Granger, psychiatry.

Residents

Khandaker A. Ahad, M.D., Indianapolis, ophthalmology.

Jennifer W. Cecil, M.D., Indianapolis, ophthalmology.

Kathy S. Clark, M.D., Indianapolis, radiology.

**Cameron R. Gongwer**, M.D., South Bend, family practice.

Peter J. Hillsamer, M.D., Lafayette, otolaryngology.

**Julia A. Hornback-Widman**, M.D., Indianapolis, radiology.

Jane L. Kotecki, M.D., Indianapolis, emergency medicine.

Mervin N. Leader, M.D.,

Goshen, psychiatry.

Susan J. Meyer, M.D., Philadephia, Pa., diagnostic radiology.

Robbyn M. Nein, M.D., In-

dianapolis, internal medicine.

Debra L. O'Donnell, M.D., Indianapolis, pediatrics.

Donnis D. Patton, M.D., Indianapolis, internal medicine.

Robert B. Pauszek, Jr., M.D.,

Indianapolis, anesthesiology.

Michael N. Payne, M.D., New

**Michael N. Payne**, M.D., New Castle, anesthesiology.

Betty R. Raney, M.D., Indianapolis, obstetrics and gynecology.

Eric C. Sklarew, M.D., Indianapolis, otolaryngology.

Jill Stephens, M.D., Indianapolis, radiology. □

#### **Beering Award presented**



Alfred G. Gilman, M.D., Ph.D., received the Steven C. Beering Award for 1990 from the Indiana

University School of Medicine. The Beering Award for Advancement of Biomedical Science is a \$10,000 award given annually to a research scientist in recognition of outstanding achievement in biomedical science.

Dr. Gilman is the chairman of the Department of Pharmacology and a Raymond and Ellen Willie Professor of Molecular Neuropharmacology, University of Texas Southwestern Medical Center in Dallas. He won the prestigious Lasker Award for Basic Medical Research in 1989, along with three other scientists, for his contribution to an understanding of the biochemical pathways that enable cells to respond to hormones, growth factors and

other environmental signals. Dr. Gilman's contribution demonstrated that G proteins, which he discovered 10 years ago, transduce information regarding responses that occur on the cell surface to the inside of the cell. This work, says the Lasker Foundation, is "helping other scientists to understand the origins of major health problems such as psychiatric disorders, hypertension and cancer and is already guiding the development of highly specific new drugs and therapeutic approaches to these crucial medical conditions.

To date, researchers have shown that disruptions in G protein function can cause serious diseases as cholera, whooping cough and even cancer. Dr. Gilman's discovery of the G protein – named because it binds guanine nucleotides, not because it was discovered by Dr. Gilman – has been followed by discoveries of several other similar proteins that also mediate and coordinate

responses to dozens of hormones and neurotransmitters.

In the Oct. 2, 1989, issue of *The Scientist*, Dr. Gilman was named one of 20 scientists of "Nobel class" on the basis of the number of citations his papers have received and the scientific prizes he already has won.

In addition to his work in Dallas, Dr. Gilman is the principal editor of *Goodman and Gilman's* The Pharmacological Basis for Therapeutics. Viewed as the bible of pharmacology, this book was created by Gilman's late father, himself a prominent pharmacologist, and Louis Goodman of the University of Utah in 1941. Dr. Gilman's latest revision, the eighth, was published this year.

Dr. Gilman visited the İ.U. Medical Center campus in Indianapolis Nov. 4 to 8, meeting with faculty, residents and students. He also lectured on "G Proteins and Regulation of Adenylyl Cy-

clase."

## news briefs

#### **Huntington disease test** available from IU

Presymptomatic testing for Huntington disease is now available through the Department of Medical Genetics at Indiana University. The testing program is funded by a one-year grant from the Department of Mental Health that ex-

pires June 30, 1991.

Eligibility requirements for testing include being a resident of Indiana, at least 18 years old and having no major mental illness or psychiatric impairment. Testing includes a neurological examination, psychiatric screening, several sessions of pretest counseling and follow up. For more information, call (317) 274-2390.

IU receives \$5 million grant to study surgery

The U.S. Department of Health and Human Services has awarded Indiana University \$5 million for a 5-year study of the outcomes and variations of results in total knee replacement surgery that is performed on patients suffering knee deterioration caused by common forms of severe arthritis.

The research is expected to establish a more scientific and patient-involved approach to surgery and health care delivery in the United States. Research at IU and other sites is expected to provide data bases that can be used to predict higher success rates for patients and doctors.

Robert S. Dittus, M.D., will guide the clinical medical research at the IU Medical Center. More than 200 physicians and surgeons will be involved in gathering data

for the research.

Four other institutions won similar grants: Harvard University, coronary artery disease; Dartmouth College, prostate disease; Johns Hopkins University, cataract surgery; and the University of Washington (Seattle), back pain.

#### Bowen Research Center will focus on prevention

Examining the role of primary care physicians in rural and urban environments will be the focus of research efforts at the new Bowen Research Center at the Indiana University Medical Center. As one of the first endowed centers in the country to focus mainly on family doctors, the center will develop methods for these practitioners to reduce preventable disease and curb rising health care costs.

The center will employ both medical doctors and social scientists. The Department of Family Medicine at the IU School of Medicine in collaboration with the School of Public and Environmental Affairs will operate the new

The center is named for Otis R. Bowen, M.D., former governor of Indiana and former U.S. Secretary of Health and Human Services.

NIAID offers ddI trials to AIDS, ARC patients

By mid-July, more than 10,000 patients with AIDS or ARC had received ddI, an experimental anti-HIV drug, through either Phase II clinical trials supported by the National Institute of Allergy and Infectious Diseases (NIAID) or through an expanded access program initiated by Bristol-Myers Squibb Co. Although well-tolerated overall, ddI produces some toxicities, including pancreatitis.

The NIAID has prepared a Note to Physicians detailing specific precautions for doctors to consider to decrease the risks of pancreatitis, along with a description of other side effects. The ddI Note to Physicians and information on ddI and other AIDS studies can be obtained by calling the AIDS Clinical Trials Information Services, 1-800-TRIALS-A.

Physicians should consider referring eligible patients to the ddI-controlled clinical trials. Two of the Phase II trials compare the safety and efficacy of ddI and AZT in AIDS or ARC patients, and a third evaluates ddI in AIDS or ARC patients intolerant to AZT.

#### Booklet explains hospice services, Medicare coverage

The Channing L. Bete Co. recently published "About Hospice Under Medicare," a booklet that details services provided by hospice and how Medicare can help cover the

The booklet offers advice on choosing a hospice, answers common questions and explains who is eligible for Medicare coverage of hospice services and what services will be covered. For a complimentary copy, call Sally Keir, 1-800-628-7733.

Dietary booklet available for AIDS patients

Ross Laboratories has published "Dietary Modification in HIV Disease," a booklet designed to help physicians provide appropriate nutritional intervention to AIDS patients. It includes a sample nutritional screening form, nutritional management recommendations appropriate to various risk factors and special recipes.

For a copy, write Biomedical Publications, Dept. 106742-N1, Ross Laboratories, 625 Cleveland Ave., Columbus, OH 43215.

### classifieds

FOR SALE: Abbott Labs vision analyzer. Excellent condition. Lightly used for one year. \$8,900. Write J.A. Johnson, M.D., 100 N. 15th St., Richmond, IN 47374, or call (317) 935-4759.

FOR SALE: Autoclaves, new, Vernitron, state-of-art, three models, 20% discount. Microscope, B&L, new. Cryogun, new. Refurbished Hewlett Packard heart monitors and Ohio anesthesia machines, calibrated. Contact Bernard Medical Resources, 1555 Dixie Highway, Covington, KY 41011, (606) 581-5205.

MICHIGAN CITY, IND. – Seeking full-time and part-time emergency physicians for 99-bed, low-volume, hospital emergency department within hour's drive of Chicago. Excellent compensation, paid malpractice and full benefit package to full-time staff. Opportunity for advancement. Contact Emergency Consultants, Inc., 2240 S. Airport Road, Room 20, Traverse City, MI 49684, 1-800-253-1795 or, in Michigan, 1-800-632-3496.

VALPARAISO, IND. – Full- or parttime physician experienced in emergency medicine, family medicine or ambulatory care of all age groups to staff urgent care center seeing 12,000+ patients per year. Affiliated with full-service hospital and EMS system. Contact Don Wadle, Vice President, 814 LaPorte Ave., Valparaiso, IN 46383, (219) 465-4675. Enclose CV with mailing.

#### FAMILY PRACTITIONERS/INTERNISTS

MetroHealth, an affiliate of Methodist Hospital of Indiana, Inc., is seeking board-certified/eligible family practitioners and internists.
 Share the advantages of joining an established prepaid multispecialty physician group offering an ideal blend of practice and lifestyle, paid professional liability, competitive compensation and fringe benefit packages. Our practice is located in Indianapolis,

a thriving Midwest community offering a number of cultural, educational and recreational activities. For confidential consideration, submit curriculum vitae to MetroHealth Physician Recruitment, P.O. Box 1367, Indianapolis, IN 46206.

FEDERAL EMPLOYMENT OPPORTU-NITY - The U.S. Army Finance and Accounting Center, Human Resources Directorate, is accepting applications for the following temporary position: physician assistant. Salary, \$35,867. Benefits: 10 paid holidays, 2 1/2 weeks' paid vacation first year, 2 1/2 weeks sick leave. Interested applicants should write to the following address to obtain application form or call Ms. Baumann, (317) 542-2451, Monday through Friday: U.S. Army Finance and Accounting Center, Human Resources Directorate Recruitment and Placement Division, Indianapolis, IN 46249-0329.

FEDERAL CAREER OPPORTUNITY -The U.S. Army Finance and Accounting Center, Human Resources Directorate, is accepting applications for the following occupation: medical officer, GYN. Salary, \$61,378 plus bonus. Benefits: no malpractice insurance required, job security, 10 paid holidays, 2 1/2 weeks' paid vacation first year, 2 1/2 weeks' sick leave, health benefits/group life insurance. Interested applicants should write to the following address to obtain application form or call Ms. Baumann, (317) 542-2451, Monday through Friday: U.S. Army Finance & Accounting Center, Human Resources Directorate. Recruitment and Placement Division, Indianapolis, IN 46249-0329.

INVASIVE (NON-ANGIOPLASTY) CARDIOLOGIST – Four-physician, single-specialty cardiology group has opening for a BE/BC invasive cardiologist. The opportunity involves a general referral cardiology service, including diagnostic catheterization. Fully equipped cardiovascular labs are expanding, and an excellent cardiovascular surgery program is established. The practice serves a large and expanding regional referral area in mid-Michigan. Generous compensation and early partnership are available. Send CV to The Heart Group, P.C., Attn: N. Polzin, 4701 Towne Centre Road, Suite 201, Saginaw, MI 48604.

FAMILY PRACTICE – Eastern Indiana. Need family practitioner to join established medical practice in small eastern Indiana community. Guaranteed salary and vacation. Contact John L. Earnest, Ambucare Medical Management, P.O. Box 1897, Marion, IN 46952, (317) 668-1500.

GENERAL SURGERY – Eastern Indiana. Need board eligible/board certified general surgeon to join busy solo general surgeon in small eastern Indiana community. Guaranteed salary/vacation/education leave. Contact John L. Earnest, Ambucare Medical Management, P.O. Box 1897, Marion, IN 46952, (317) 668-1500.

LAKE COUNTY – Dynamic emergency physician group practicing in Chicagoland and northwest Indiana since 1971. Career opportunity for well-trained emergency physician. Attractive competitive remuneration, fully paid occurrence malpractice insurance, flexible scheduling, enjoyable working environment and state-of-the-art facilities. For more information, call Mariele McBride or Dr. Marshall Segal, (312) 327-0777, or write Emergency Medicine, S.C., 2142 North Sedgwick, Chicago, IL 60614.

NEAR CHICAGO – Family practice clinic in northwest Indiana. Young, growing suburban area. Excellent guarantee, benefits, insurance, etc. OB optional. Contact Lynn Clayton, The Furst Group, One Appletree Square, Suite 1300, Min-

### classifieds

neapolis, MN 55425, 1-800-728-6032.

BC/BE DIABETOLOGIST-ENDOCRI-NOLOGIST wanted to join the same immediately. 700-bed tertiary hospital with active diabetes program. Fully furnished office, excellent salary and fringe benefits available. Write in confidence to P.O. Box 68065, Indianapolis, IN 46268.

IMMEDIATELY AVAILABLE – Fully furnished office space to share with another internist/physician. Heather Glen Medical Building (west of St. Vincent Hospital in Indianapolis). Terms negotiable. Call Dr. Athar, (317) 872-5159.

CME APPLIED FOR – Attend Medico/Legal Seminars. SIMBA West XI, Vail, Colo., Feb. 2-9, 1991. SIMBA South VIII, Sanibel Island, Fla., March 23-30, 1991. Join us in mountains or by sea. Sun, fun and group discounts. (317) 871-6222.

**EMERGENCY MEDICINE - GENERAL PRACTICE:** Expanding emergency medicine-general practice contract group needs general practice physician for central Indiana facility. Guaranteed salary and vacation. Contact PREFERRED MEDICAL MANAGEMENT, P.O. Box 1897, Marion, IN 46952.

PRIVATE PRACTICE would like to sell: ATL Ultramark IV Cardiac Ultrasound System, 3 years old; includes 2D Echo, M-Mode Scan, CW and Pulsed Doppler; has capabilities for carotid and peripheral Doppler; system comes with (1) 2.25 MHz Probe, (1) 3 MHz Probe, (2) 2.25 MHz CW Doppler Transducer. Quinton Treadmill Monitoring Unit. For more information, please call (317) 664-1201.

**PRIVATE PRACTICE OPPORTUNITIES** exist in southern Indiana, affiliated with a 590-bed hospital. Specialties include internal medicine and family practice. Competitive com-

pensation plan and attractive partnership arrangement available. Send CV to Don Hoit, 11222 Tesson Ferry Road, Suite 203, St. Louis, MO 63123 or call 1-800-336-3963.

NON-INVASIVE CARDIOLOGIST -Four-physician, single-specialty cardiology group has an immediate opening for a BE/BC noninvasive cardiologist. Echo, Doppler, Holter and treadmill are established in-clinic. Full invasive and surgical programs are established. The practice serves a large and expanding regional referral area in mid-Michigan. Generous compensation and early partnership are available. Send CV to The Heart Group, P.C., Attn: N. Polzin, 4701 Towne Centre Road, Suite 201, Saginaw, MI 48604.

MULTIPLE AND VARIED physician practice opportunities currently exist in the state of Indiana. Call Patti Quiring at (317) 633-6444 at work or (317) 823-4746 at home. Patti is a physician recruiter for Technical Resource Group, which is an executive search firm head-quartered in Indianapolis.

POSITION AVAILABLE with thriving three-clinic urgency care corporation. Practice heavily emphasizing industrial, sports medicine and wellness programs. Regular work week, no call. Assistant medical director available. Salary and benefits in six figures. Contact Dr. Dean Elzey, (219) 489-2772.

EMERGENCY MEDICINE – Terre Haute, Ind. Local multi-hospital group seeking full-time career-oriented emergency physician for position in small- and medium-volume community hospitals. Flexible scheduling, very competitive compensation package, partnerships available. Send CV or contact William R. Grannen, Priority Health Care, P.C., 7179 Lamplite Ct., Cincinnati, OH 45244, (513) 231-0922.

**EMERGENCY PHYSICIANS WANTED -**For Fayette Memorial Hospital in Connersville, Ind. Will consider all physicians with emergency medicine experience. 15,000 visits/year. Fee-for-service group does its own billing. Hourly compensation based on training, experience and qualifications. Excellent fringe benefit package includes, life, health, disability and malpractice insurance plus CME allowance, ACEP and ISMA dues, pension plan and potential bonus. Contact Michael D. Bishop, M.D., FACEP, Emergency Care Physicians, 640 S. Walker St., Suite A, Bloomington, IN 47403, (812) 333-

FAMILY PRACTICE - Hospital-sponsored clinic opportunity. Dynamic, growth-oriented hospital in beautiful north central Wisconsin is seeking two family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to an income and benefit package that is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact Dan McCormick, President, Allen McCormick, France Place, Suite 920, 3601 Minnesota Drive. Bloomington, MN 55435, (612) 835-

CENTRAL INDIANA – Physicianowned emergency group accepting applications for full-time, career-oriented emergency physicians. Flexible work schedules and excellent benefit package. Parttime and directorship positions also available. Send CV or contact Midwest Medical Management, Inc., 528 Turtle Creek, North Drive, Suite F-4, Indianapolis, IN 46227, (317) 783-7474. □

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#### Advertising index

American Medical Association821, 835
Central Pharmaceuticals830
The Ear Institute of Indiana843
Indianapolis Cardiology Associates807
Lilly, Eli & CoCover
Medical Protective803
Palisades Pharmaceuticals804
Physicians' Directory853
Physicians Insurance Co. of IndianaCover
Roche Laboratories804, 805
G.D. Searle and Company815, 816
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The Journal of the Indiana State Medical Association

December 1990

Vol. 83, No. 12

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Vol. 83, No. 12

### scientific contributions

Evaluation of swallowing disorders:
The modified barium swallow

Acute anterior cruciate ligament injury

896
Familial dilated cardiomyopathy:
A case report

902

RADIOLOGY CLINIC
35-year-old woman with a lung mass

904

HAND CLINIC
Osteoarthritis of the proximal interphalangeal joint

908





Cover art by Dave Tipton of Indianapolis. See page 921 for artist information.

### departments

stethoscope	. 883
from the museum	. 884
what's new	. 886
cme calendar	. 888
drug names	.901
book review	.921
about the artist	.921
auxiliary report	.922
cme answers	.945
isma leadership	. 942
news briefs	. 943
people	. 944
obituaries	.946
classifieds	.952

## YOCON YOHIMBINE HCI

Description: Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubaceae and related trees. Also in Rauwoffia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, odorless. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

Action: Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalmic centers and release of posterior pituitary hormone

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it; however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

Indications: Yocon <sup>6</sup> is indicated as a sympathicolytic and mydriatric. It may have activity as an aphrodisiac

Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug. 1.2 Also dizziness, headache, skin flushing reported when used orally. 1.3

**Desage and Administration:** Experimental dosage reported in treatment of erectile impotence.  $^{1,3,4}$  1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to  $\frac{1}{2}$  tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.  $^3$ 

How Supplied: Oral tablets of Yocon® 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

#### References:

- A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981
- Goodman, Gilman The Pharmacological basis of Therapeutics 6th ed., p. 176-188.
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- Weekly Urological Clinical letter, 27:2, July 4, 1983.
- A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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## **■**stethoscope

## ISMA looking for more Key Contact participants

The Indiana State Medical Association is still looking for more members to participate in its expanded legislative Key Contact Program. Physicians who participate in the program volunteer to contact their legislators about issues that are important to medicine.

The implementation of a "telephone tree" is a recent improvement to the program designed to enhance the speed and efficiency of alerting members when they need to contact their legislators. Because of the way the "tree" is structured, it relies heavily on individual participation. Each county has its own "telephone tree" and has been assigned a chief county key contact organizer. When a key contact alert is sounded, the ISMA lobbyists will notify the county organizers who will trigger the response in their counties by contacting their legislators and two other physicians. These two physicians will contact their own legislators and two other physicians. The process continues until all physicians in the county have been contacted.

When possible, fax machines will be used to ensure quick and efficient transmission of the alerts. The ISMA staff will fax messages to the key contact participants whenever possible. Key contacts who have fax machines but have not notified ISMA of their fax numbers should call Jean Terry or Debbie Warner at the ISMA.

Participants in the program are kept informed about state and federal legislative proposals through recorded messages that members can access by phone and through weekly legislative newsletters during the annual sessions of the Indiana General Assembly.

To join the program and make your voice heard, call the ISMA Government Relations Department, (317) 925-7545 or 1-800-969-7545.

## Mark your calendars for annual legislative reception

"Hoosier Hysteria '91" is the theme of the annual ISMA/IMPAC Legislative Reception, scheduled Wednesday, Jan. 30, from 6 to 9 p.m. at the Hyatt Regency in downtown Indianapolis. All ISMA members and members of the Indiana General Assembly are invited to the event, which will include several games of skill, including basketball free-throw shooting. Interested participants should call Susan Grant, (317) 925-7545 or 1-800-969-7545.

## ISMA develops rebuttal letter to insurance companies

The ISMA has developed a rebuttal letter physicians can send to insurance companies that notify physicians that their fees exceed the usual and customary allowance. The letter was developed in response to letters insurance companies send to physicians and their patients stating the physician's fees are excessive and encouraging the physician to accept the insurer's payment as payment in full.

Physicians can retype the rebuttal letter on their office stationery. Copies of the letter are available from ISMA field staff or by calling Tina Dillard or Barbara Walker at the ISMA, (317) 925-7545 or 1-800-969-7545. □

## from the museum

Ear diseases became a medical specialty in 1841 when Adam Politzer of Vienna developed the head mirror. During the mid-19th century, James Yarsley founded a hospital in Britain devoted exclusively to ear diseases. However, physicians could not intervene surgically to correct deafness until the 20th century.

The lack of effective treatments for deafness did not prevent the development of "cures." If deafness was caused by acute or chronic inflammation, physicians recommended syringing the ears with stimulating oils. Some suggested the ears be washed with warm milk, and the patient be bled.

Quack cures for deafness proliferated. Some quacks thought deafness was caused by a deepseated and chronic catarrh and recommended an electromagnetic head cap for \$8. The Help-to-Hear Co. in New York City sold a device it claimed would "enable the deafest to hear ordinary conversation." The \$2 device was only a small sheet of hard rubber. Even patent medicine producers touted cures for deafness. Taylor's Remedy for Deafness, consisting primarily of garlic, was popular during the mid-19th cen-

Ear trumpets that amplified sound provided relief for those hard of hearing in the 19th century. The earliest ear trumpets were merely hollowed horns from bulls. By the mid 1700s, elaborately designed ear trumpets appeared on the market. Many were made of silver and engraved with flowers, birds and dragons. In 1820, manufacturers introduced the first collapsible ear trumpet. This device also had a ring so it could be carried around the neck.

In the 1860s, double trumpets

became popular. This device contains a tube, leading from the ear, that doubled back and opened into a large circular aperture covered with a hood. The hood collected sound and threw it back to the ear. The hood was covered with a scrolled grate. Bronzed tin ear trumpets were available for those of humbler means. By the end of the 19th century, tortoise shell was popular.

Conversation tubes, consisting of flexible tubing made of silk-covered rubber or gutta percha, also were used. The speaking trumpet was on one end and the ear piece on the other. These end pieces were ivory originally and

ebony later.

In the late 19th century, medical supply companies advertised artificial ear drums, but the electric hearing aid was not invented until the 20th century. The first electric hearing aid was introduced in 1901 by Miller Reese Hutchinson of New York City.

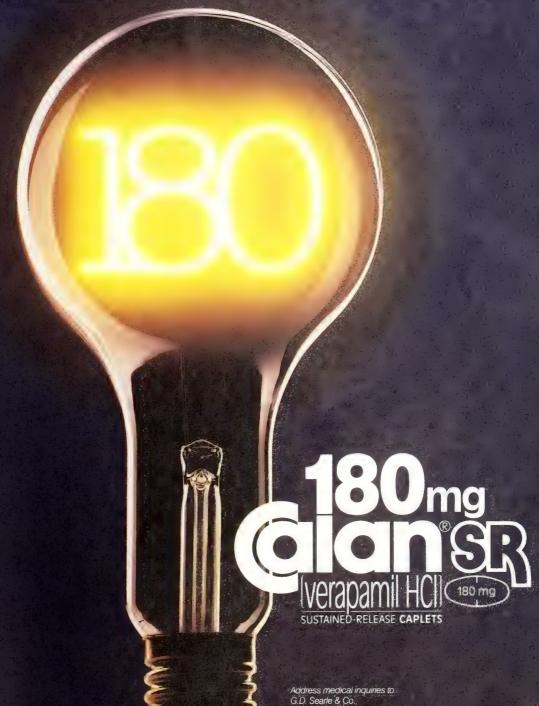
The Indiana Medical History Museum has a few conversation tubes and one early hearing aid and would like to add to this collection

For more information, write the Indiana Medical History Museum, 3000 W. Washington St., Indianapolis, IN 46222 or call (317) 635-7329. □



Taken from the William H. Armstrong & Co. catalog of surgical instruments, 1894.

## A BRICHT IDEA...



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### what's new

TAP Pharmaceuticals has announced that the U.S. Food and Drug Administration has approved the marketing of Lupron Depot for the treatment of endometriosis, a disease that affects an estimated one in 15 women of reproductive age and is a leading cause of infertility.

Lupron Depot (leuprolide acetate) is a synthetic analog of the naturally occurring gonadotropin-releasing hormone. When taken for six months, Lupron Depot causes a sustained decrease in the production of estrogen, which interrupts the menstrual cycle and produces a reversible medically induced menopause. As a result, endometrial implants shrink, providing significant relief from the pain associated with the disease.

Wampole Laboratories has introduced Bactigen Meningitis products that feature the Bactigen Meningitis Panel, a latex immunoassay for the direct and rapid detection of H. influenzae type b, N. Meningitidis A/B/C/Y/W135 and S. pneumoniae antigens in CSF, serum, urine and blood culture fluid. Individual test kits also are available, including Group B Streptococcus to offer complete testing flexibility. The procedure provides accurate results in less than 30 minutes.

Lea & Febiger has published four new books, Synopsis of Neurology by Richard Lechtenberg, M.D., acting chairman of the Department of Neurology at Long Island College Hospital; Reconstruction of the Child's Hand, edited and with contributions by Peter R. Carter, M.D., Texas Scottish Rite Hospital for Crippled Children in Dallas; Boyd's Textbook of Pathology, 9th Edition, by A.C. Ritchie, professor emeritus of pathology at

the University of Toronto; and *The ICU Book* by Paul L. Marino, M.D., University of Pennsylvania, School of Medicine. To order the books on a 30-day approval, call Lea & Febiger, 1-800-444-1785.

The Hewlett-Packard Co. has available a new product brochure featuring the HP PageWriter XL family of cardiographs. The free color brochure includes a full-sized ECG illustrating trace quality and analysis reporting. The cardiographs feature a trace-preview screen that allows physicians and technicians to check lead contact before recording, a remote patient module that carries a lifetime warranty, a compact maneuverable carr and alternative battery operation for emergencies.

The Gulf Publishing Co. has published a video catalog listing more than 90 medical video topics produced with the Baylor College of Medicine and the Methodist Hospital System, the Texas Heart Institute and the University of Texas M.D. Anderson Cancer Center. To obtain a catalog, contact Gulf Publishing Co., Attn: Medical Video Publishing Section, P.O. Box 2608, Houston, TX 77252-2608, (713) 529-4301.

The Midmark Corp. has developed the new 491 Power Otolaryngology Chair and 498 Power Procedures Center. Power height and power back may be controlled with the touch of a button, and controls are located

News of what is new in the medical supply industry is compiled from news releases. Each item published does not necessarily constitute an endorsement of a product or recommendation for its use by INDIANA MEDICINE or the Indiana State Medical Association.

on both sides of the chair's back. For information or free literature, call 1-800-MIDMARK.

**Small Business Computers of** New England, Inc. has released Homeward Bound!™, aftercare instructions software for emergency departments, outpatient clinics, urgent care facilities and other health care environments in which patient instruction forms are desired. The software produces personalized, legible and informative discharge instructions for patients. It keeps track of discharged patients and can produce daily lists of these patients, along with their diagnoses and treating physicians.

Springhouse Corp. has released *Dealing with Dying*, a 45-minute video offering advice on the care of terminally ill patients. The video covers such concerns as giving the patient a sense of control, dealing with fears and repressed anger, communication problems, family anxieties, encouraging the patient to share his feelings, dealing with insensitive health care providers and handling your own emotions.

The American Hospital Association has published two new booklets designed for in-service training and personnel orientation programs in health care facilities.

Effective Complaint Handling in Health Care provides practical guidelines for handling customer complaints positively and effectively. Positive Co-worker Relationships in Health Care provides guidelines for improving and maintaining positive co-worker relationships.

Both booklets can be ordered from AHA Services, Inc., P.O. Box 99376, Chicago, IL 60693. □



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## mcme calendar

Methodist Hospital

Methodist Hospital of Indiana will sponsor the following courses:

Feb. 20 – Occupational Medicine, Petticrew Auditorium, Methodist
Hospital, Indianapolie

Apr. 20 – Cardiology Update, Petticrew Auditorium, Methodist Hospital, Indianapolis.

For more information, call Dixie Estridge, (317) 929-3733.

**Indiana University** 

The Indiana University School of Medicine will sponsor the following courses:

Jan. 25-26 – Management of Hypercholesterolemia: Goals and Strategies, University Place Conference Center and Hotel, Indianapolis.

Feb. 23-24 – Annual Meeting, Indiana Society of Anesthesiologists and Anesthesia Update, University Place Conference Center and Hotel, Indianapolis.

Mar. 13 - Ob/Gyn Update, University Place Conference Center and Hotel, Indianapolis.

Mar. 15 - Movement Disorders, University
Place Conference
Center and Hotel,
Indianapolis.

Mar. 22 - Update in Pulmonary/Critical Care
Medicine, University
Place Conference
Center and Hotel,
Indianapolis.

For information, call Melody Dian, (317) 274-8353.

Washington University

The Washington University School of Medicine in St. Louis will sponsor these CME courses:

Jan. 5-10 – Rheumatology for the Practicing Physician, Keystone Resort, Colo.

Feb. 21-24 – Rhinoplasty, location to be determined.

Mar. 8-9 - Fourth Annual Contact Lens Course,
Washington University Medical Center,
St. Louis, Mo.

For more information, call Cathy Caruso, 1-800-325-9862.

University of Michigan

The University of Michigan Medical School will sponsor these courses:

Dec. 14-15 – Advanced Trauma Life Support Provider Course, Towsley Center, Ann Arbor, Mich.

Jan. 11 - Basic Life Support for Health Professionals, Towsley Center, Ann Arbor, Mich.

Jan. 12-13 – Advanced Cardiac Life Support Provider Course, Towsley Center, Ann Arbor, Mich.

Feb. 1-2 – Advanced Trauma Life Support Provider Course, Towsley Center, Ann Arbor, Mich.

Feb. 8 - Basic Life Support for Health Professionals, Towsley Center, Ann Arbor, Mich.

Feb. 3-8 - 15th Annual Mid-

winter Family Practice Update, Boyne Highlands Inn, Harbor Springs, Mich.

Feb. 8-10 – Advanced Cardiac Life Support Instructors Course, Towsley Center, Ann Arbor, Mich.

Feb. 9 – Advanced Cardiac Life Support Recertification Course, Towsley Center, Ann Arbor, Mich.

Feb. 10-15 - Myocardial Infarction, Davos, Switzerland.

Feb. 21-24 – 11th Annual Advances in the Management of Infectious Diseases: Update, South Seas Plantation, Captiva Island, Fla.

For information, call Julie Jacobs, (313) 763-1400.

Ohio State University

The Ohio State University College of Medicine will sponsor the following courses:

Feb. 8-9 - Dermatology for the Non-Dermatologist, Hyatt Hotel on Capitol Square, Columbus, Ohio.

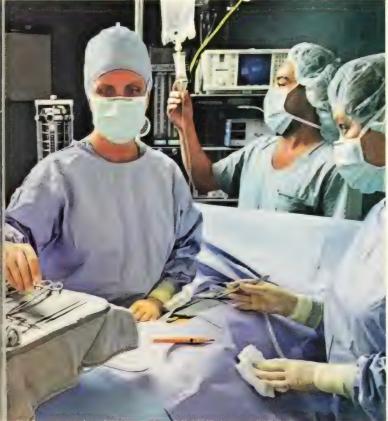
Feb. 22-23 – Infectious Disease 1991: Current Problems, Hyatt Hotel on Capitol Square, Columbus, Ohio.

Mar. 1-2 – 34th Annual Post-graduate Symposium in Ophthalmology: Current Concepts in Ocular Inflammation, Hyatt Hotel on Capitol Square, Columbus, Ohio.

For additional information, call 1-800-492-4445. □



Dr Holwick outside of hospital where she practices as a civilian traumatologist



Dr. Holwick in operating room at Letterman Army Medical Center.

#### JANN L. HOLWICK, M.D.

General and Trauma Surgeon. Captain, U.S. Army Reserve.

**EDUCATION** University of Southern California, B.S.; University of California School of Medicine.

RESIDENCY Harbor General Hospital – UCLA Medical Center.

**HOSPITAL AFFILIATIONS** St. Luke Hospital; Huntington Memorial Hospital, Pasadena, California; Traumatologist, Arcadia Methodist Hospital, Arcadia,

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**Brief Summary** 

Consult the package literature for prescribing information. Indication: Lower respiratory infections, including pneumonia, caused by Streptococcus pneumoniae, Haemophilus influenzae, and Streptococcus pyogenes (group A &-hemolytic streptococci).

Contraindication: Known allergy to cephalosporins.

Warnings: CECLOR SHOULD BE ADMINISTERED CAUTIOUSLY TO PENICILLIN-SENSITIVE PATIENTS PENICILLINS AND CEPHALOSPORINS SHOW PARTIAL CROSS-ALLERGENICITY. POSSIBLE REACTIONS INCLUDE ANAPHYLAXIS.

Administer cautiously to allergic patients

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics it must be considered in differential diagnosis of antibiotic-associated diarrhea. Colon flora is altered by broad-spectrum antibiotic treatment, possibly resulting in antibioticassociated colitis.

#### Precautions:

- Discontinue Ceclor in the event of allergic reactions to it · Prolonged use may result in overgrowth of nonsusceptible organisms.
- · Positive direct Coombs' tests have been reported during treatment with cephalosporins
- · Ceclor should be administered with caution in the presence of markedly impaired renal function. Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made. · Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
- · Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor penetrates mother's milk. Exercise caution in prescribing for these patients.

Adverse Reactions: (percentage of patients)

Therapy-related adverse reactions are uncommon Those reported include

 Hypersensitivity reactions have been reported in about 1.5% of patients and include morbilliform eruptions in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions have been reported with the use of Ceclor. These are characterized by findings of erythema multiforme, rashes, and other skin manifestations accompanied by arthritis/arthralgia, with or without fever, and differ from classic serum sickness in that there is infrequently associated lymphadenopathy and proteinuria, no circulating immune complexes, and no evidence to date of sequelae of the reaction. While further investigation is ongoing, serum-sickness-like reactions appear to be due to hypersensitivity and more often occur during or following a second (or subsequent) course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults with an overall occurrence ranging from 1 in 200 (0.5%) in one focused trial to 2 in 8,346 (0.024%) in overall clinical trials (with an incidence in children in clinical trials of 0.055%) to 1 in 38,000 (0.003%) in spontaneous event reports. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy; occasionally these reactions have resulted in hospitalization, usually of short duration (median hospitalization = two to three days, based on postmarketing surveillance studies). In those requiring hospitalization, the symp toms have ranged from mild to severe at the time of admission with more of the severe reactions occurring in children. Antihistamines and glucocorticolds appear to enhance resolution of the signs and symptoms. No serious sequelae have been reported.

· Stevens-Johnson syndrome, toxic epidermal necrolysis,

and anaphylaxis have been reported rarely. Anaphylaxis may be more common in patients with a history of

penicillin allergy.

Gastrointestinal (mostly diarrhea): 2.5%

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.

· As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.

· Rarely, reversible hyperactivity, nervousness, insomnia, confusion, hypertonia, dizziness, and somnolence have been reported.

 Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1% and, rarely, thrombocytopenia and reversible interstitial nephritis.

Abnormalities in laboratory results of uncertain etiology.

Slight elevations in hepatic enzymes.

Transient lymphocytosis, leukopenia, and, rarely, hemolytic anemia and reversible neutropenia.

Rare reports of increased prothrombin time with or

without clinical bleeding in patients receiving Ceclor and Coumadin concomitantly

· Abnormal urinalysis; elevations in BUN or serum creatinine

· Positive direct Coombs' test.

False-positive tests for urinary glucose with Benedict's or Fehling's solution and Clinitest® tablets but not with Tes-Tape® (glucose enzymatic test strip, Lilly).
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## For more information contact:

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Director, Health Insurance Administration
Indiana State Medical Association
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# Evaluation of swallowing disorders: The modified barium swallow

Nancy Gustafson-Yoshida, O.T. Dean D.T. Maglinte, M.D. Ronald C. Hamaker, M.D. Frederick M. Kelvin, M.D.

The request for a barium swallow can mean an examination of the hypopharynx or esophagus. It may mean an examination of the stomach, the duodenum, the small bowel or all three. To some, it may even mean an examination of the heart to evaluate chamber size. Indeed, the term barium swallow, used to request a radiological study, means several things to the referring physician. It is not simply a matter of swallowing barium and performing fluoroscopy and radiography.

In recent years, the evaluation and treatment of swallowing disorders have taken a more objective format, due mostly to extensive research. This article will inform the clinician of a modification of the barium swallow that can assist in accurately evaluating patients who have difficulty swallowing. Ordering the appropriate tests will help the patient recover sooner.

There is a significant difference between a modified barium swallow and a traditional barium swallow. When a barium swallow is ordered, the radiologist usually evaluates the patient's

#### **Abstract**

Swallowing is a complex process. The diagnosis and treatment of swallowing dysfunction are more objective due mostly to recent research. The performance of a barium swallow, modified to study the dynamics of swallowing and its value in the management of patients with swallowing dysfunction, is described. The conventional barium swallow assesses structure and function of the thoracic esophagus, including gastroesophageal reflux and its sequelae. The modified barium swallow is a dynamic technique designed to evaluate swallowing function and dysfunction as it relates to the oral and pharyngeal phases of swallowing.

esophagus. Others may include the stomach or the small intestine. In a modified barium swallow, the study focuses on the oral activity, the pharynx, the larynx and the superior constrictor muscle of the esophagus.<sup>5</sup> Patients who benefit from the modified barium swallow, which requires a multidisciplinary approach, include those with intracranial trauma, cerebrovascular disease, Parkinson's disease, neuromuscular disorders and head/neck carcinoma or any patient with difficulty swallowing.3,4,6,7,11 In many instances, esophagography should be done if the modified barium swallow is unremarkable.

## Aspiration vs. laryngeal penetration

The difference between aspiration and penetration should be understood when assessing a patient's

swallowing difficulty. Aspiration has occurred when a portion of the bolus has passed into the larynx, past the false cords and the true cords, and subsequently has entered the trachea. If the bolus has passed into the larynx area above the false cords and has not progressed below the true cords, laryngeal penetration, not aspiration, has occurred.

Physicians may confuse these two events, not accurately identifying when true aspiration occurs. The term aspiration should be used only when a portion of the bolus passes all three structures mentioned and enters the airway.<sup>7</sup>

#### Modified barium swallow

The diagnosis and treatment of swallowing disorders have taken a more objective evaluation with the introduction of the modified barium swallow or "cookie swallow." The modified barium swallow differs from the barium swallow in not only the amount of barium administered but also in the area of radiographic focus.<sup>5</sup>

At Methodist Hospital of Indiana, a typical modified barium swallow is performed in conjunction with either a speech or occupational therapist trained in the diagnosis and treatment of swallowing disorders. The procedure usually is performed with the patient sitting rather than recumbent. The evaluation usually begins with the patient in a lateral position. The initial contrast given to postoperative neck surgery patients is 2 mL to 4 mL of a non-ionic low-osmolarity contrast (Omnipaque, Winthrop, Inc.) to determine, with the least amount of risk, if gross aspiration or leak is present.1 If no aspiration is identified with the first trial, the evaluation proceeds (as in all other patients) with liquid barium in increasing bolus sizes, then pasty contrast (E-Z Paste, E-Z-EM, Inc.) and finally with a cookie covered with pasty barium.

The evaluation is stopped if the patient is at risk for significant aspiration. If aspiration is identified with the first trial, the study may or may not continue, depending on the patient's diagnosis and the amount and cause of aspiration.

The primary fluoroscopic focus (dynamically recorded on videotape) of the modified barium swallow is to show a clear lateral view of the patient's oral cavity, pharynx, larynx and the upper portion of the esophagus. During the study, the radiographic focus is not altered from its original position. The study usually is performed without magnification so the entire process of deglutition can be studied as a unit. The

patient also may be asked to perform voluntary airway protection or another compensatory technique to determine if that will improve the safety and efficiency of the swallow.<sup>5</sup>

At Methodist Hospital, a multidisciplinary approach to the study is used. The procedure is performed primarily by a speech or occupational therapist and a gastrointestinal radiologist. Videotaping allows the referring physician(s) to review the examination later. The tapes are kept for comparison and educational purposes.

The modified barium swallow differs from the barium swallow in not only the amount of barium administered but also in the area of radiographic focus.

Areas studied in the evaluation Oral transit – The time of transit and the completeness of bolus formation and its movement through the oral cavity are observed. The range of tongue motion, alignment of the teeth and stasis of contrast after the swallow also are noted.

Swallowing reflex – The swallowing reflex is timed to see if a delay exists. If a delay is present, it is important to know how long that delay is with each type of contrast because this helps the therapist decide which texture of food or liquid is safest for the patient.

Pharyngeal transit - The integ-

rity of peristalsis is noted. If there is pharyngeal stasis after the swallow, the precise location of the stasis and whether it can be cleared by a dry swallow also are noted. Laryngeal penetration or aspiration is identified. Its severity and the phase of pharyngeal swallowing at which it occurs are observed. Laryngeal elevation, cricopharyngeal relaxation and epiglottic closure or active range of motion also are noted.<sup>5-7</sup>

Importance of team approach
The benefits of a team approach
are important for an accurate diagnosis and subsequent treatment
plan. The radiologist is vital for
diagnosis, operating the equipment and identifying difficulties
related to motility and other disorders in the thoracic esophagus.
The therapist's experience is important in evaluating the pharyngeal and oral phases of swallowing and in providing the best possible therapy plan for that patient
to be safely fed by mouth.<sup>8,9</sup>

Bedside evaluation vs. modified barium swallow Bedside evaluation is important in assessing the patient's gag reflex, tongue and lip movement, facial tone and mental status. It also is possible to gain some information on oral transit. It is, however, impossible to accurately predict aspiration at the bedside of patients who do not produce a gagging cough after the trials are given. Misdiagnosis occurs in 40% of all patients with aspiration, making bedside evaluation unreliable and inaccurate in determining a patient's ability to eat safely. 7-11

Case reports
Patient 1 – A 64-year-old man
with squamous cell carcinoma of

the supraglottic larynx was referred for swallowing evaluation seven days after supraglottic laryngectomy, bilateral anterior neck dissection and tracheostomy.

A modified barium swallow was performed at the time of evaluation. The patient was instructed in voluntary airway protection before the modified barium swallow. The patient's first trial revealed 100% aspiration of the bolus (non-ionic contrast). The patient was able to cough and reswallow 30% to 50% of the aspirated material. The patient was repositioned and voluntary airway protection reviewed.

In second trial, aspiration decreased to 50%, with the patient being able to cough and reswallow 30% to 50% of aspirated material (2 cc of liquid barium). He then was given one trial of barium paste. Following voluntary airway protection, 70% of the bolus penetrated the laryngeal vestibule. With a cough, he was able to clear and swallow half of the penetrated bolus. The patient aspirated the rest of the bolus.

Recommendations – 1) Pureed diet per occupational therapy instruction; 2) Provide patient with swallowing instructions; 3) Practice instructions with patient; and 4) Remove nasogastric tube if approved by physician. (Therapist felt the nasogastric tube may be interfering with the patient's ability to freely pass the bolus into the esophagus.)

Goal – 1) Patient to safely take appropriate oral diet; 2) The patient's nasogastric tube was removed when swallowing therapy was initiated; 3) The patient was seen twice daily for swallowing therapy before discharge 16 days after surgery; 4) At

discharge, the patient was safely taking a pureed oral diet; and 5) Recommend that the patient continue to follow swallowing instructions when eating.

Patient 2 – The patient was a 60-year-old woman with pharyngo-esophageal dysphagia, status post resection and radiation therapy for carcinoma of the hypopharynx. The patient was referred to occupational therapy for a modified barium swallow at the time of admission. The study showed a small amount of the bolus was able to pass into the esophagus, with stasis in the pyriform sinuses and moderate aspiration.

The patient was restudied the following day, after having had regional anesthetic block of the cricopharyngeal muscle. At that time, the patient displayed an improved swallowing mechanism with only minimal stasis in the pyriform sinuses and most of the bolus passing into the esophagus. No aspiration was seen.

Program – 1) Re-evaluate patient after surgery; 2) Provide patient with swallowing instructions after surgery; 3) Practice instructions with patient.

Goal – 1) Patient to safely take appropriate oral diet; 2) The patient was studied six days following cricopharyngeal myotomy and esophagoscopy. At that time, only minimal stasis was seen in the pyriform sinuses, with the bolus passing uneventfully into the esophagus; 3) The patient was seen every two days for therapy after the myotomy to ensure that she continued to safely take the oral diet; and 4) At discharge, 13 days after surgery, the patient was safely taking pureed diet and liquids following swallowing instructions.

#### Conclusion

According to research, the risk of silent aspiration is 40% when performing a bedside swallowing evaluation.¹ The traditional barium swallow does not provide the clinician with the information needed to accurately identify the patient's swallowing difficulty. Additionally, such a patient may be at risk for significant aspiration due to the amount of barium given during the examination.

The modified barium swallow is less risky for the patient and provides more accurate information concerning the cause of the swallowing disorder. It also provides the therapist with the objective information necessary to implement a treatment regimen specific to an individual patient's problem.

Clinicians must be more aware of the need to order this procedure for patients with swallowing difficulties. Using the information obtained from a modified barium swallow provides a more objective way to determine appropriate treatment.

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## Acute anterior cruciate ligament injury

K. Donald Shelbourne, M.D. Alla Mollabashy Mark De Carlo, M.S., P.T.

In past years, the technique of anterior cruciate ligament (ACL) reconstruction has received great attention. 1,3,4,6,9,12,13 Recent ACL literature has focused on the protocol for postoperative rehabilitation. 3,10-12,14 Although the importance of timing from injury to surgery regarding ACL deficiency and reconstruction has been recognized, 7,8,12 it has not been substantiated scientifically with clinical data.

The consequences of minimizing the time from injury to surgery may have been overlooked because surgeons focused on ACL reconstruction, establishing stability of the involved knee. However, because many surgeons now use an intra-articular technique for ACL reconstruction using bone-patellar tendon-bone graft to provide that stability,<sup>5</sup> the energy and focus have shifted to attaining postoperative strength and range as soon as possible.<sup>16</sup>

This article tries to determine if there is a relationship between the length of time from acute injury to ACL reconstruction and the corresponding short-term results regarding strength, range of motion (ROM) and subjective patient evaluation.

#### **Abstract**

This article covers a retrospective investigation of the time from an acute anterior cruciate ligament tear to the intra-articular reconstruction of the tear. The study was conducted to find a specific time that would result in greater knee strength, range of motion (ROM) and/or patient satisfaction after surgery.

The patient population was divided into three groups, and the Cybex, ROM and modified Noyes' questionnaire scores were evaluated for each group. The patient data base was collected through the Physical Therapy Department at Methodist Sports Medicine Center in Indianapolis.

The analyses indicated that patients who delayed surgery for 22 or more days had better ROM scores, specifically full extension. The results did not show any correlation between the time from injury to surgery and the postoperative strength or patient satisfaction of the involved knee. Further analyses also indicated that patients who delayed surgery for one week or more and who underwent an accelerated rehabilitation program after surgery attained full range at a similar rate as those who delayed surgery for 22 or more days.

#### Method

Patient population – Preoperative and follow-up evaluations were done on 168 patients who underwent intra-articular reconstruction of the anterior cruciate ligament after acute injury, using patellar tendon graft. Acute injury was defined as up to 8 weeks from the time of injury to surgery, with the stipulation that the patient had not returned to full activity since the injury. The patient population, 111 men and 57 women, had an average age of 22 years, ranging from 13.7 to 46.2 years.

All patients were treated by the same physician from 1986 to 1988. The patients from 1986 followed a conventional rehabilitation program after reconstruction, 15 while those from 1987 to 1988 followed an accelerated rehabilitation program. The patient population was divided into three groups: people who had surgery within seven days of injury (group A); eight to 21 days after injury (group B); and more than 21 days after injury (group C).

Group A had 32 patients, group B had 65 patients, and group C had 71 patients. All associated injuries to the knee were recorded as lateral meniscus tears, medial meniscus tears and/or

#### Table 1

#### Percentage with additional injuries

Group A B	Additional injuries/group 27/32 52/65	% additional injuries 84 80
С	50/71 p>.1	70

#### Table 2

#### Percentage lacking 5° full extension

Group	ROM 1 (1-13 days)	ROM 2 (14-30 days)	ROM 3 (31-60 days)	ROM 4 (61-90 days)
A	14%	12%	7%	17%
В	9%	20%	16%	11%
C	8%	5%	5%	0%

#### Table 3

#### Mean modified Noyes' patient questionnaire scores

Group	Mean scores
Α	89
В	84
C	88

medial collateral ligament tears.

Before data from each patient group were examined, including strength, ROM and patient questionnaire, the percentage of additional injuries for each group was calculated (Table 1). There were no significant differences in the amount of additional injuries between groups (p>.1). Therefore, each group was preoperatively similar regarding the physical condition of the knee. This allowed us to compare follow-up data between groups, without regard for differences in the associated injuries of one group as compared to another.

Patient follow-up and evaluation – Patients were seen by the surgeon for follow-up examinations at one week, two weeks, five weeks and every month thereafter. In addition, they were asked to complete a modified Noyes' questionnaire six months after

surgery.

The evaluations of the involved knee were objective and subjective. The objective portion of the patient's evaluation consisted of Cybex and ROM scores. Cybex scores were used from patient follow-up charts at five to seven weeks, eight to nine weeks, 10 to 12 weeks and 13 to 15 weeks

postoperative at 180°/sec. ROM scores for flexion, extension and hypertension also were recorded at one to 13 days, 14 to 30 days, 31 to 60 days and 61 to 90 days.

Subjectively, the patient's fiveto 10-month modified Noyes' questionnaire score was used to rate the patient's early satisfaction after the reconstruction. Individual scores were analyzed to show the short-term results of reconstruction, with respect to time from acute injury to surgery.

The objective and subjective scores from each evaluation were regressed, using least squares regression against the time between injury and surgery. The mean Cybex, ROM (flexion, extension and hypertension) and modified Noyes' questionnaire scores were evaluated for each group. The percentage of each group with under 60% on its Cybex score and the percentage of each group lacking 5° of full extension at each test date were recorded. In addition to Cybex and ROM evaluation, the percentage of each population undergoing scar resection was calculated.

Group A and group B were subdivided further by year of surgery, secondary to changes in postoperative rehabilitation protocol. Because patients who underwent surgery in 1986 followed a conventional rehabilitation program<sup>15</sup> and patients who underwent reconstruction in 1987 to 1988 followed an accelerated rehabilitation program, it was necessary to separate groups A and B, regarding rehabilitation protocol. Then, the percentage of each subgroup lacking 5° full extension was calculated. Groups also were categorized as competitive athletes and non-competitive athletes.

A previous study (KDS, unpublished data) also showed that

all groups responded equally well in postoperative physical progress, regardless of patient motivation for a patient population similar to the one involved in this study. The analyses in the study, therefore, would predict any correlations regarding time between injury and surgery and the postoperative strength, ROM and the general short-term physical progress of the post-ACL reconstructed knee. This information could be used to predict the short-term progress of the knee for each group and, in turn, predict the optimal time for surgery.

#### Results

The linear regression for the Cybex, ROM and modified Noyes' questionnaire scores showed no trends regarding time from injury to surgery for each group at each test date. This also was true of the mean Cybex scores, which showed no trend between groups at each test date. Along with mean Cybex scores, the percentage of each group attaining 60% scores on the Cybex at each testing date showed no difference among groups.

Based on the mean ROM (flexion, extension, hyperextension) scores, group C was the most successful in regaining flexion and hyperextension and lacking the least extension of any group at each specific test date. Group C was the most successful in having the lowest percentage of its population lacking 5° or more of full extension at each test date (Table 2).

The mean five- to 10-month score on the modified Noyes' questionnaire for each group is listed in *Table 3*. The patient questionnaire scores showed little variance between groups.

#### Table 4

## Subgroups by year of surgery ROM - % lacking 5° of full extension

<b>Group</b> A (1986)	ROM 1 (1-13 days) 0%	ROM 2 (14-30 days) 17%	ROM 3 (31-60 days) 14%	ROM 4 (61-90 days) 33%
A (1987-88)	14%	10%	5%	6%
B (1986)	25%	36%	44%	38%
B (1987-88)	7%	5%	5%	0%

#### Table 5

#### Percentage undergoing scar resections

Group	% of the population undergone scar resection
Α	12.5%
В	4.6%
C	4.2%

Because of differences in rehabilitation protocol, groups A and B were divided further into 1986 and 1987 to 1988 subgroups. The 1987 to 1988 subgroups for groups A and B showed a lower percentage of the population lacking 5° full extension (*Table 4*). The 1987 to 1988 subgroup for group B had a similar percentage of its population lacking 5° extension as group C. Therefore, group B patients, under accelerated rehabilitation, regained extension at a similar rate as group C patients.

The percentage of each group that underwent scar resections is listed in *Table 5*. Group A patients, who had ACL reconstruction within seven days of injury, had the greatest percentage of scar resections.

The total population was divided into competitive and non-competitive athletes. The only difference between these two groups was that competitive ath-

letes scored significantly higher on patient questionnaires.

#### Discussion

The purpose of this study was to use clinical data to evaluate the short-term physical progress of the acutely injured ACL after reconstruction and to determine if, with other factors controlled as much as possible, the time from injury to surgery was related to early strength, ROM and patient satisfaction. In turn, we looked for an optimum time for surgery after acute injury, with respect to the resulting physical recovery of the involved knee. The patient population was divided into three groups, and all had the same general physical condition of the preoperative knee.

The mean Cybex scores for each group revealed no trends in strength after reconstruction and the time from injury to surgery. This was the result, despite the possibility of quadricep atrophy with time after acute injury<sup>2</sup> and the possibility of resulting difficulty in regaining strength after surgery. The percentage of each group attaining 60% Cybex scores at each test date also showed no trend regarding postoperative strength against time from injury

to surgery.

The mean ROM scores showed considerable variance in the resulting stiffness of the postoperative knee with respect to the time from injury to surgery. Patients who had surgery 22 or more days after injury began with greater flexion in early recovery than patients who had surgery one to 21 days after injury and also regained flexion at a greater rate. Patients who had 22 or more days after injury also were more successful in attaining postoperative hyperextension. Those who had surgery 22 or more days after injury also had the lowest mean values regarding the lack of full extension at each test date.

The mean lack of full extension value was a good indicator that patients who had surgery 22 or more days after injury had less stiffness at each postoperative time frame. The percentage of each population that lacked 5° or more of extension also indicated that those who had surgery 22 or more days after injury also had a lower incidence that lacked 5° of full extension. This, in turn, indicated that patients who had surgery 22 or more days after surgery had less difficulty regaining full extension.

Patients who had surgery one to seven days (group A) or eight to 21 days (group B) after injury also were subdivided by year of surgery because of the changes in postoperative protocol. The re-

sults showed that the 1987 to 1988 subgroup of patients who had surgery from eight to 21 days post-injury and who underwent an accelerated rehabilitation program had a lower percentage of its population lacking more than 5° of full extension. The accelerated rehabilitation program may have enabled those who had surgery from eight to 21 days after injury to regain full extension at a similar rate as patients having surgery 22 or more days post-injury.

The percentage of scar resections for each group also indicated the difficulty in regaining full extension with respect to having surgery within one week after an ACL tear. A scar resection removes inappropriate scarring of the patellar tendon graft. The scarring of the patellar tendon graft caused the patients who had surgery from one to seven days post-injury to have a higher incidence of difficulty with range (stiffness or lack of extension) because this group had a greater percentage of scar resections.

The mean five- to 10-month modified Noyes' patient question-naires revealed no differences between groups. The only difference was that competitive athletes had higher mean questionnaire scores compared to non-competitive athletes. The results of the mean scores for each indicate no apparent trend regarding the time from injury to surgery and patient self-evaluation or satisfaction.

According to the clinical data in this study, the time from injury to surgery was not related to the short-term strength of the reconstructed knee. Patient satisfaction or self-evaluation also was not related to the time of surgery. The short-term ROM of the knee

was related to the time from injury to surgery. Patients who underwent ACL reconstruction within the first week of injury had general ROM problems, specifically regaining full extension. Therefore, the results from this population suggest that surgery within the first week of injury may result in unnecessary stiffness of the joint with an early loss of range, especially full extension, and, in turn, prolongs the road to full recovery. Optimal time for surgery with respect to resulting ROM begins at one week post-

The time of surgery after acute injury is important to post-operative range. But the time from injury to surgery is one of many factors that can influence the postoperative progress of the knee. It also is important to evaluate the consequences of delaying surgery with respect to the patient's career, academic and social demands.

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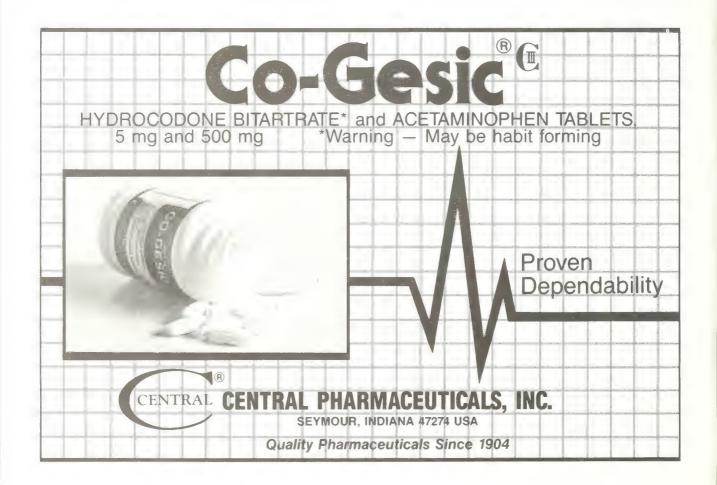
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## drug names

#### Look-alike and sound-alike drug names

Category:

Corticosteroid (ophthalmic)

Brand name: Generic name:

Dosage forms:

HMS, Liquifilm, Allergan RMS, Upsher-Smith

Medrysone

Ophthalmic susp.

**ANSAID** 

Category:

Nonsteroidal anti-

inflammatory Brand name:

Generic name: Dosage forms:

Ansaid, Upjohn Flurbiprofen Tablets

Narcotic agonist analgesic

Morphine sulfate Rectal suppositories

AXSAIN Neuralgia

Axsain, Galen Pharm.

Capsaicin Cream

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ook-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions.

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## Familial dilated cardiomyopathy: A case report

John W. Klemme, M.D. Crown Point, Ind.

The role of genetics in dilated cardiomyopathy is unclear and has not been given much attention. Hypertrophic cardiomyopathies are most frequently associated with familial patterns. However, many cases of idiopathic dilated cardiomyopathy actually may be more of a familial type.

The following case report illustrates this point.

Case report

A 40-year-old man had enjoyed excellent health until two weeks before admission. At that time, he noticed increasing shortness of breath while working as a largeequipment mechanic. There was no history of recent viral illness. The patient had consumed alcohol heavily in the past but had stopped drinking completely four years earlier. There was no history of diabetes, hypertension, rheumatic heart disease or myocardial infarction. The patient was on no medication and had not received any chemotherapy.

The patient's family history was of great significance. His twin sister was diagnosed with idiopathic cardiomyopathy one month before his illness. His

#### **Abstract**

The role of genetics in dilated cardiomyopathy is not well-known. The following case report exemplifies the importance of family history in cases of idiopathic dilated cardiomyopathy.

sister's diagnosis was made when she had signs and symptoms of congestive heart failure. An echocardiogram revealed severe dilated cardiomyopathy. She underwent cardiac catheterization and right ventricular biopsy. The biopsy results were negative for acute myocarditis. Therefore, she was diagnosed with and treated for idiopathic dilated cardiomyopathy. His sister had not been living in the same house or environment as her brother.

The family history also revealed that his mother died of myocarditis at the age of 49. The patient also had two aunts with confirmed cases of dilated cardiomyopathy (both alive) and two aunts who died at ages 38 and 58 of a heart attack and an enlarged heart (*Figure*).

On physical examination, this 40-year-old patient appeared healthy and robust. His blood pressure was 122/90, his pulse was 80 and regular, and he was afebrile. There was no increase in jugular venous pressure. His lungs were clear to auscultation

and percussion. He had a loud S3 gallop but no murmurs, rubs or clicks. The rest of his examination was unremarkable.

His chest x-ray showed cardiomegaly. His ECG demonstrated left atrial abnormality, signs of left ventricular hypertrophy, and nonspecific S-T and T-wave abnormalities. His echocardiogram demonstrated a dilated left ventricle with the left ventricular end diastolic diameter of 70 mm. His left atrium also was dilated at 54 mm. The left ventricular wall thickness was within normal range.

The patient underwent cardiac catheterization, revealing normal coronary arteries but a dilated cardiomyopathy. The results of the right ventricular biopsy were negative for active inflammation.

The patient was treated with furosemide 40 mg daily, lisinopril 5 mg daily for afterload reduction and digoxin .25 mg daily. He symptomatically improved and was released from the hospital. His family was counseled about the possibility of other relatives

developing this disorder.

#### Comments

Cardiomyopathies are divided into three basic categories: dilated, hypertrophic and restrictive. A familial incidence is wellknown with hypertrophic cardiomyopathy. Although a familial pattern has been reported with dilated cardiomyopathy, 1-3 the role of genetics is unclear and has not been widely publicized. The etiologies commonly attributed to dilated cardiomyopathy include alcohol, viruses, medications and pregnancy. When no etiology is identified, the condition usually is classified as idiopathic.

This case report exemplifies the importance of the family history in dilated cardiomyopathies. Family members may benefit from counseling about potential hereditary patterns. Family members also may benefit from early screening for occult cardiac diseases, especially if they have mild or nonspecific symptoms.

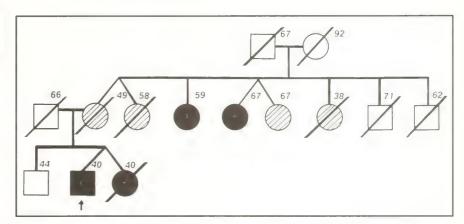


Figure: Pedigree of affected kindred: square=male; circle=female; slashed line=death; blackened=confirmed case of cardiomyopathy; hatch=suspected case of cardiomyopathy; superscripts=age at this writing or age of death; arrow=index case.

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## 35-year-old woman with a lung mass

David Kurlander Indianapolis

A 35-year-old woman went to the emergency department with a three-week history of exertional shortness of breath, worsening during the past three days and associated with sharp left-sided chest pain. The patient also complained of increasing weakness, confusion, fatigue and hoarseness during the previous month. She denied hemoptysis, weight loss or fever, but had a 20-pack year history of cigarette smoking.

Physical exam revealed an

afebrile, normotensive woman in moderate respiratory distress. Breath sounds were diminished over the left anterior chest with associated dullness to percussion. No wheezes or crackles were noted. Lymph nodes were not palpable, and there was no hepatosplenomegaly. The serum calcium level was 15 mg/dL, with an albumin of 4.5 g/dL. The white blood cell count was 15,000. Arterial blood gas on room air revealed a pH of 7.58, pO2 of 84 and pCO2 of 22. The electrocardiogram showed normal sinus rhythm with a heart rate of 75 and a prolonged QT interval. Chest

radiograph and chest computed tomography (CT) were obtained (Figures 1 and 2).

The chest radiograph demonstrated a large chest mass in the region of the aortic arch. The differential diagnosis in a young patient includes lymphoma, aortic aneurysm, odd pneumonia and, uncommonly, lung carcinoma. The CT of the chest revealed a mass adjacent to the normal appearing aortic arch. The mass appeared to be within the lung, abutting the arch. It had no characteristics of pneumonia and did not arise from the mediastinum as lymphoma should. A transtho-



Figure 1: Chest radiograph showing a large mass adjacent to the aortic arch.



Figure 2: Computed tomography scan showing tumor enveloping the left pulmonary artery (arrow).

racic needle biopsy was performed with CT guidance. The diagnosis was squamous cell carcinoma of the lung.

Lung cancer is the leading cause of cancer death in older adults but is rare in patients younger than 40. This younger age group accounts for less than 5% of all lung cancer cases. The incidence of lung cancer increases progressively throughout life, with most cases occurring between ages 50 and 70.1

Distinct differences exist in the epidemiology, histopathology and extent of disease on presentation in these two age groups. There is a relatively higher incidence of women among the younger patients, with a male:female ratio of 1.5:1, versus a 2.5:1 ratio seen in the older cancer population. The histologic type of lung cancer is more likely to be oat cell (43%) or adenocarcinoma (35%) than squamous cell (17%) in the younger population, although squamous cell carcinoma is the most common cell type in older adults (44%).2

The extent of cancer spread at the time of diagnosis appears to be more advanced in the younger group. This is due to the high proportion of the more aggressive oat cell and adenocarcinomas in the younger group. One study reported 94% of the patients younger than 40 had stage III or greater at the time of diagnosis.3 Lung cancer in young patients should have the same indications for surgery and treatment as lung cancer in older patients.

Unlike the differences outlined above, the younger adult group shares a similar clinical picture and grim prognosis as the older group. Many patients are symptomatic on presentation. The two most common complaints are chest pain and increasing cough. In most cases, these symptoms have been present for more than two months before the patient seeks medical attention. There may be a delay in diagnosing lung cancer in younger patients because physicians often do not consider this diagnosis.

Although it typically takes 20 to 30 years of cigarette smoking for older adults to develop lung cancer, heavy tobacco use is even more closely tied to the lung cancer found in the younger cancer victims. Most young victims (>90%) reported a history of tobacco use since their early teens.

Hypercalcemia is a common occurrence in the setting of lung cancer, present in 12% of all cases. When present in the absence of bone metastases, it is an example of a paraneoplastic syndrome. This syndrome is defined as any symptom complex occurring in a cancer patient that cannot be explained by local or distant spread of the cancer. There are two major mechanisms leading to excess serum calcium. Most frequently, it is the result of metastases to the bone. In other cases, hypercalcemia can occur in the absence of bony metastases and is due to the secretion of an ectopic parathyroid hormone-like substance by the squamous cell tumor. Hypercalcemia is most common in squamous cell carcinoma and least common in small cell carcinoma, although small cell most frequently metastasizes to the bone. Hypercalcemia also is seen with other malignancies, including breast cancer, renal cell carcinoma, multiple myeloma and squamous cell cancer of the esophagus and head and neck.

Clinical features of hypercalcemia are associated with gastrointestinal (GI), neurologic,

cardiovascular and renal symptoms. GI effects occur early, producing nausea, vomiting, abdominal discomfort and in some cases ileus and pancreatitis. Neurologic effects include muscle weakness, confusion and coma. Hypercalcemia shortens the cardiac QT interval and may lead to lethal cardiac arrhythmias. Nephrogenic diabetes insipidus with subsequent polyuria and nocturia is a consequence of the effects of hypercalcemia on kidney tubules, leading to dehydration and worsening of the hypercalcemia.

The treatment of hypercalcemia depends on the serum level and clinical symptoms. Mild hypercalcemia in asymptomatic patients can be treated conservatively with fluid hydration. Intervention is required when serum calcium levels exceed 12 mg/dL and is required emergently when levels are greater than 15 mg/dL, when potentially fatal complications can occur. Under these latter circumstances, intravenous fluids should be started immediately to reverse the dehydrated state caused by polyuria and vom-

After rehydration, the loop diuretics, Lasix and ethacrynic acid, may be administered to promote renal calcium excretion. Thiazides should be avoided because of their action of increasing renal calcium reabsorption. Mithramycin, a cytotoxic antibiotic, is effective in reducing serum calcium levels in hypercalcemic cancer patients and is considered the drug of choice for this population. Its effects are not immediate, requiring 24 to 48 hours before lowering calcium levels. It acts by inhibiting bone resorption. Adverse effects of mithramycin may include hepatic necrosis, thrombocytopenia with secondary

hemorrhage and, rarely, renal failure. Other treatments include calcitonin, oral and intravenous phosphates and glucocorticoids.

This patient was unresectable and opted for supportive treatment and possible chemotherapy.

The author is a fourth-year medi-

cal student at the Indiana University School of Medicine.

Section editor: Robert D. Tarver, M.D., Dept. of Radiology, Wishard Memorial Hospital, Indiana University Medical Center, 1001 W. 10th St., Indianapolis, IN 46202.

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## Osteoarthritis of the proximal interphalangeal joint

James W. Strickland, M.D. Richard S. Idler, M.D. James J. Creighton, Jr., M.D.

Osteoarthritis, also called degenerative arthritis or hypertrophic arthritis, is the most prevalent of all joint diseases, affecting more than 60 million Americans. It is a slowly progressive condition of unknown cause and obscure pathogenesis. It occurs late in life and principally affects the hands and large weight-bearing

ioints.

Osteoarthritis is characterized by pain, deformity, enlargement of the joints and decreased motion. When it affects the proximal interphalangeal joints of the hands, the condition can vary from mild intermittent discomfort and minimal functional disability to severe continuous pain and great disability.

Anatomy and pathology
The proximal interphalangeal joint is a simple hinge joint. The

Arthritic Destruction

SCHNITZ

Figure 1: Top, Lateral view of the normal proximal interphalangeal joint with smooth reciprocating surfaces of the head of the proximal phalanx and the base of the middle phalanx. Bottom, Joint destruction secondary to osteoarthritis is shown. Loss of the normal joint space with osteophytic overgrowth of the opposing joint margins and cyst formation in the base of the middle phalanx are depicted.

bicondylar distal surface of the proximal phalanx articulates with a reciprocal biconvex base of the middle phalanx to permit a 110° to 120° arc of flexion and extension. Lateral or side-to-side motion is constrained by an intricate, strong collateral ligamentous arrangement. Osteoarthritis alters this smooth gliding arrangement by producing focal erosive lesions, cartilage destruction, subchondral sclerosis, cyst formation and the development of large osteophytes at the margins of the joint (Figure 1).

The disease originates in the cartilage, and the changes in that tissue are progressively more severe with advancing disease. Structural changes in the underlying bone and inflammatory involvement of the synovium are secondary and of milder intensity.1 Asymmetric narrowing of the articular surfaces or alterations in the phalangeal bony architecture often result in angulatory deformities of the proximal interphalangeal joint. The osteophytic overgrowth of the joint margins both enlarge and alter the normal joint contours (Figure 2).

#### Incidence

Osteoarthritis is a hereditary disease, and involvement of the hands is more prevalent in older women than in men of the same age.<sup>2</sup> The condition typically develops within a few years of menopause and affects at least

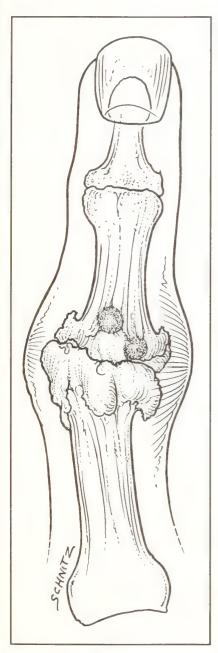


Figure 2: Angulatory deformity of the proximal interphalangeal joint secondary to asymmetric joint destruction. Again, the osteophytic overgrowth, cyst formation and joint narrowing can be seen.

50% of all people 60 years or older.<sup>3</sup>

The incidence of proximal interphalangeal joint involvement has not been determined, but it occurs considerably less frequently than distal interphalangeal disease. Although most people have disease limited to their hands, there is a modest increased risk of developing osteoarthritis elsewhere.

Clinical characteristics

Presenting complaints for patients with osteoarthritis involving the proximal interphalangeal joints are joint discomfort during and following use of their hands with minimal pain at rest. Morning stiffness of the involved joints is a frequent complaint, and swelling often results from vigorous activity. The joints may be intermittently warm and tender. After one or two years, the symptoms and findings of inflammation usually diminish, and osteophytic articular nodules, known as Bouchard's nodes, develop around the periphery of the proximal interphalangeal joint.

The disease is strikingly symmetric, although there may be considerable variation in the degree of involvement of different proximal interphalangeal joints of a given patient's hands. Concomitant distal interphalangeal involvement, known as Heberden's nodes, is almost always present. The condition usually spares the metacarpophalangeal joints, except for the thumb, and wrists, except for the carpometacarpal joints.

Patients are concerned about the enlargement of their finger joints, and angulatory deformities are particularly bothersome (Figure 3). A progressive loss of joint motion usually occurs, although many severely involved joints will continue to function well with little discomfort.

Diagnostic features

The proximal interphalangeal joints are moderately enlarged in the early stages of the disease and become markedly expanded and often angulated in later stages. They are best examined by palpating gently over the lateral and medial aspects of the joint, where the flexor and extensor tendons do not impede the assessment of the joint margins and synovial membrane. Osteophytic projections, or Bouchard's nodes, may be encountered by the palpating finger, and synovial fluid distention may be detected by compressing the joint anteroposteriorly while palpating medially and laterally. After articular cartilage has been lost, a coarse crepitation of the joint may be felt as it is moved through a full range of motion. A decreased arc of motion is often measured in late stages of the condition.

Routine laboratory tests for inflammation are usually normal in osteoarthritis, unless another disease is present. Good anteroposterior (preferably magnified) and lateral radiographic projections of the involved proximal interphalangeal joints are probably the most important diagnostic procedure for this disease. Asymmetric narrowing of the joint space, dense sclerosis of the subchondral bone, cysts adjacent to the joint and the presence of large marginal osteophytes are highly specific for osteoarthritis of the proximal interphalangeal

joints.

#### Treatment

Brandt,<sup>4</sup> in his chapter on the management of osteoarthritis, writes, "The treatment of osteoarthritis should be tailored to fit the clinical severity of the disease." This advice is particularly applicable to the proximal interphalangeal joint. For patients with only mildly symptomatic joints, avoiding the type of strenuous activities that predictably produce pain, swelling and stiffness would be appropriate.

Assurance that the deformities produced at the joint will not, in all likelihood, progress to a complete loss of motion, severe deformity or a profound loss of function is equally important. The occasional use of analgesics may be all that is required. As the disease progresses, the use of appropriate nonsteroidal antiinflammatory drugs (NSAIDs), injection of glucocorticoids into or or around the affected joints, splinting, therapy and the use of nylon-spandex stretch gloves may be beneficial.

In advanced disease with severe pain, fixed deformity or minimal joint motion, hand surgical procedures may be valuable. Arthrodesis may be done to relieve pain and realign the digits at the expense of motion. Silicone rubber interpositional arthroplasty procedures also may be valuable in carefully selected cases, although they are technically demanding and their long-term durability is questionable.

This is another in a series of monthly articles on hand conditions from the Indiana Center for Hand

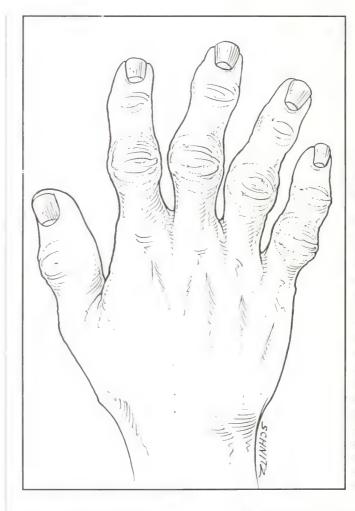


Figure 3: Clinical presentation of a patient's hands with advanced osteoarthritis. Enlargement of the proximal interphalangeal joints (Bouchard's nodes) is shown with angulatory deformities resulting from asymmetric joint destruction and alterations in the phalangeal bony architecture are shown. Concomitant DIP joint disease also is shown.

Surgery and Rehabilitation of the Hand and Upper Extremity in Indianapolis.

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## Forced retirement and the ADEA

John W. Bowers, J.D., LL.M. Fort Wayne

The technological revolution in medicine continues unabated; it is impervious to the age of its participants. Who are the best and the brightest? Who decides when a physician's knowledge, skill and stamina have deteriorated to the point where he or she is no longer capable or permitted to practice medicine with his or her associates or fellow shareholders?

In addition to the tough, subjective decision-making that doctors make about each other's talents, there are heady business matters of medical malpractice,

certification and hospital staff privileges that also must be examined. Many doctors are confronted with the issue of their own or a colleague's forced retirement.

The Age Discrimination in

Employment Act, as amended¹ (ADEA) is a federal statute designed to protect older Americans in the work force. Everyone age 40 and older is protected. The law applies to employers of 20 or more employees. Employers may not discriminate in hiring, firing, promotion or other employment practices, nor, except as otherwise permitted by the ADEA, forcibly retire someone older than 40 because of age.

The ADEA does not prohibit changes in duties or working con-

ditions that cause no materially significant disadvantage for an older employee. An employee must prove that he or she suffered adverse change in terms or conditions of employment because of an employer's biased conduct.2 The ADEA does not require special treatment for older workers.3 The most recent amendments did not eliminate a section4 that permits forced retirement of "bona fide executives" or "high policymakers" older than 65 who have vested retirement benefits in excess of a specified dollar amount.

This article briefly focuses on two inter-related issues. First, can a physician be an employee for ADEA purposes? Second, if he or she is an employee, under what by reason of their unique status as business owners and managers, true partners cannot be classified as employees.6 In 1984, the same court held that the shareholders of a professional corporation (a law firm) could not be counted as employees of the same corporation to reach the requisite number for lawsuit purposes. The court reasoned that the role of a shareholder in a professional corporation is far more analogous to a partner in a partnership than it is to the shareholder of a general corporation.7

Yet, the most recent cases on the subject of who is or is not an employee do not follow the precedent established in the Seventh Circuit. In *Hyland v. New Haven* 

Radiology Associates, a radiologist who owned stock in a professional medical corporation was not a partner, but a corporate employee entitled to sue for age discrimination. The 2nd Circuit Court

of Appeals ruled that if a business chooses this corporate form, then every individual who works for it is an employee within the meaning of the ADEA. Although Dr. Hyland, was an officer, director and shareholder of the corporation, the court was persuaded that he also was specifically designated as an employee by virtue of an employment agreement containing detailed provisions relating to the terms and conditions of his employment. The court concluded that the corporation was

Employers may not discriminate in hiring, firing, promotion or other employment practices, nor, except as otherwise permitted by the ADEA, forcibly retire someone older than 40 because of age.

circumstances can forced retirement occur?

The ADEA extends its protection only to those individuals who are in a direct employment relationship with an employer. However, in various situations, corporate officers, directors and shareholders may be considered employees and, therefore, protected by the ADEA.<sup>5</sup>

Several years ago, the U.S. Court of Appeals for the 7th Circuit, which applies and interprets federal law in Indiana, ruled that

precluded from expelling Dr. Hyland from the group on the

basis of his age.

In Wheeler v. Hurdman,9 a fired general partner of a big eight accounting firm who brought suit under various federal anti-discrimination laws, including the ADEA, was found not to be an employee. The 10th Circuit Court of Appeals reviewed several rulings that other federal circuit courts had used in making this determination. It found that the plaintiff's participation in profits and losses, exposure to liability, investment in the firm, partial ownership of firm assets and her voting rights, plus her position under the partnership agreement and partnership laws, clearly placed her in a different economic and legal category than non-part-

However, the court did note that the characteristics of a general partnership are different from that of a voting shareholder/director/officer of a small or large corporation. Accordingly, individuals in the latter-type structure may maintain ADEA actions in that federal circuit court jurisdiction. The court also sounded a warning when it stated that partnerships cannot, with impunity, admit one to the partnership merely as a device for avoiding application of anti-discrimination laws. For purposes of our discussion, no individual shareholder member should be given titular, as opposed to actual, authority to circumscribe the federal anti-discrimination laws. A strong defense to any claim of age discrimination is that the professional medical corporation incorporates many of the duties and responsibilities for its shareholder members as outlined above; if ever

called to task, the employer can argue that such shareholder members are not employees.

What about the situation where a physician, whether a shareholder or not, could be considered an employee? As mentioned earlier, certain classes of individuals are exempt from the ADEA's protection regarding forced retirement. Executives or high policymakers who have held their positions for a two-year period immediately before retirement and are 65 or older may be forcibly retired if they can expect to receive a retirement benefit from their employer worth at least \$44,000 annually.

In general, when calculating the minimum retirement of \$44,000, the entire amount must be attributable to the employer and cannot be a combination of retirement benefits from other sources. Retirement benefits from other employers, amounts from the employee's own investments and Social Security benefits are excluded. In addition, the amount of the employer's pension that is attributable to the employee's contribution into the retirement plan cannot be counted. In addition to the \$44,000 annual retirement package qualification, the person being forcibly retired must be an "executive" or "high policymaker." Unfortunately, the ADEA does not define either of these terms.

The Equal Employment Opportunity Commission, the federal anti-discrimination watchdog agency, has promulgated regulations to guide employers in application and interpretation of these terms. Moreover, while litigation in this field has been relatively sparse, the courts also have interpreted when certain individuals

will be deemed "executives" or "high policymakers." The factors considered for a bona fide executive are: 1) the individual's primary duty consists of management of the enterprise or of a department or a subdivision; 2) the individual customarily and regularly directs the work of two or more employees; 3) the individual has the authority to hire or fire other employees or his or her suggestions about hiring, firing, advancement and promotion of other employees are given particular weight; 4) the individual customarily and regularly exercises discretionary power; and 5) the individual does not devote more than 20% of his or her time to activities that are not directly and closely related to the performance of the work described above.

While it is doubtful that physicians can meet each of the executive criteria because their principal duties are caring for patients, performing surgery and giving surgically related care, in the event they play a "significant role in the development of corporate policy and effectively recommend the implementation of such policy" they will most likely fall within the "high policy making" employee prong of the ADEA's exemption.<sup>10</sup> A physician's role in making corporate policy must be more than minor for the exemption level contemplated by the statute and the regulations to ap-

Finally, a brief word about the damages and remedies resulting from a violation of the ADEA. A successful plaintiff may be reinstated to his or her former position, receive actual damages, liquidated damages and attorney's fees if a court rules in the

plaintiff's favor.

The decisions are complicated, and the liability is great. Forced retirement, while an option, should only be made after careful and detailed evaluation of all the facts and circumstances.

The author is an attorney practicing labor and employment law on behalf of management with Beers,

Mallers, Backs & Salin in Fort Wayne.

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- 10. 29 CFR §541, et seq. See also Whittlesley v. Union Carbide Corp., 742 F2d 724 (2nd Cir 1984).

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## Safe disposal of radioactive wastes needs physician support

Editor's note: This article was provided by the American Medical Association.

he disposal of low-level radioactive wastes may seem like a minor concern among medicine's worries. But consider these facts:

• Twenty-five percent to 30% of all low-level radioactive wastes produced in the United States directly results from medical uses.

 About 120 million nuclear medicine procedures contribute annually to low-level radioactive waste production.

• Research is a significant contributor to low-level radioactive waste production. For example, radioisotopes are used in the development and evaluation of about 90% of all new drugs.

Universities, medical schools, hospitals, laboratories and medical practices are among the producers of low-level radioactive wastes. Their activities clearly benefit individual patients and society as a whole.

A political problem

Then why is disposal of radioactive wastes a problem?

Actually, disposal has long been more a political than a public health problem. In the 1960s, six licensed commercial facilities received wastes from across the country. After three of these facilities closed, opposition developed in the three remaining host states on the grounds that they should not be burdened with the disposal needs of the entire na-

In response, Congress passed

the Low Level Radioactive Wastes Policy Act in 1980. Under this bill, each state would eventually become responsible for disposal of radioactive wastes generated within its boundaries. The act recommended that states participate in regional groupings or compacts to improve the cost effectiveness of disposal facilities. It also stated that any regional facility could exclude wastes from outside its region after Jan. 1, 1986.

Actually, disposal has long been more a political than a public health problem.

Slow progress

For the next five years, states moved to negotiate compacts and sign the necessary agreements. The difficulty in locating and gaining approval for disposal sites slowed progress. Remote sites might satisfy public sentiment, but their remoteness complicated disposal convenience and cost.

By 1985, it was clear that states would not meet the 1986 deadline. Congress responded with amendments to the Wastes Policy Act, extending the deadline to Jan. 1, 1993. On that date, the three existing commercial sites located in Beatty, Nev.; Richland, Wash.; and Barnwell, S.C., - will be closed to outsiders.

State negotiations have proceeded since 1985. Yet selecting a disposal site and preparing to

operate facility involves a complicated series of steps. In its 1988 informational report, "Low-level Radioactive Wastes," the American Medical Association Council on Scientific Affairs said those steps include legislation, government oversight, public participation, financing, engineering, supervision, surveillance and quality control. Few states are far along in this process and fewer still are expected to meet the 1993 deadline.

Physicians can help

Physicians can play a key role in helping their states develop acceptable disposal facilities for lowlevel radioactive wastes. Their medical training can provide an informed perspective on the personal and public health risks related to waste disposal. But more importantly, they can describe the beneficial uses of procedures that produce radioactive wastes and how these uses will be compromised if disposal sites for the wastes are unavailable.

Consider becoming involved in efforts to establish disposal facilities. First, contact representatives of your state's radiation control program or health agency. Arrange to meet with them, determine whether your state is involved in a compact, and offer your support. Encourage these representatives to consider what will be done if a disposal site is not available by Jan. 1, 1993. Stress the need to develop one or more storage sites for low-level wastes as an intermediate measure until a disposal site becomes available.

Secondly, encourage your

medical society's public health or environmental health committee to become involved. Pass policy regarding the disposal of lowlevel radioactive wastes and then promote it. Through lobbying efforts or by working with public health authorities, the medical society can influence disposal facility plans.

Finally, physicians can help persuade their patients, the media and community groups that radioactive materials can be beneficial. Seek opportunities to lead discussions in classrooms or speak to

public audiences.

For further information, contact the Division of Biomedical Science (J. Loeb, PhD., director), American Medical Association, 515 N. State St., Chicago, IL 60610, (312) 464-5456.

## Physicians respond to indigent care survey\_

How much uncompensated medical care are Indiana physicians providing? To determine the answer to this question, the ISMA Board of Trustees authorized a survey of ISMA members, following the introduction of Resolution 89-23 during last year's House of Delegates. The goal of the resolution was to determine the amount of free care given and to make the findings available to the public. More than 800 ISMA members responded to the guestionnaire that was mailed with the June issue of ISMA Reports.

Conducted between June and

September 1990, the survey asked about free care or reduced charges for patients who are underinsured or unable to pay but do not qualify for Medicaid.

The 807 physicians responding provide free care or reduced charges for 8.1% of their underinsured patients, on the average. Some specialties indicated free or reduced charges for care to as many as 50% of their patients.

With the aging of the American population, one would expect most physicians to have a fairly significant number of Medicare patients within their patient base.

Medicare recipients make up an average of 35% of the patient base of ISMA physicians practicing in the state. For one-fourth (25.7%) of the 807 physicians,

That assumption proved correct.

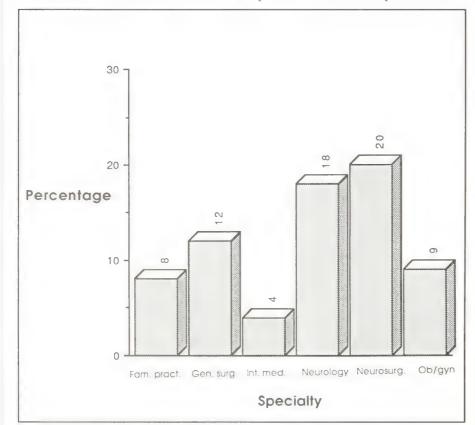
ing in the state. For one-fourth (25.7%) of the 807 physicians, Medicare patients make up 50% of their practice base. These figures give new credence to the many reimbursement problems and other hassle factors physicians

Conversely, only 2.2% of Indiana physicians said more than 50% of their patients are on Medicaid. On the average, the physicians said their patient base is 11% Medicaid. Undoubtedly, the significantly lower percentage is the result of Indiana's restrictive Medicaid eligibility requirements.

Forty-nine percent of the family practice physicians said they provide prenatal care and delivery services to Medicaid patients. Ninety-six percent of the obstetrician/gynecologists said they provide prenatal care and delivery services to Medicaid patients.

Family practice physicians and ob/gyns agreed that the extension of Medicaid eligibility to children up to age 6 and pregnant women with incomes at 133% of the poverty level will increase their Medicaid patient load.

Physicians also were asked what kind of universal health care for the uninsured they find least offensive. Mean responses were: 1) expand Medicaid eligibility -41.7%; 2) mandate more employer-paid group health insurance - 34.8%; 3) a Canadian-style health care system - 10.9%; 4) another type of universal health care system - 16.6%; and 5) other -8.1%. □



This graph shows the percentage of patients who receive free or reduced charge medical services.

## To Anyone Who Has A Lung Disease This Is A Breathtaking View.



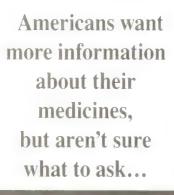
Climbing even a short flight of stairs can leave a person who suffers from a chronic lung disease fighting for breath.

So the next time you go bouncing up a few steps, think about this. An estimated one out of ten Americans suffers from chronic lung disease. And the mortality rate from lung diseases is increasing faster than any of the other top ten causes of death, including heart disease and most forms of cancer.

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### book review

Rodney A. Mannion, M.D. LaPorte, Ind.

Jury of My Peers, A Surgeon's Encounter With The Malpractice Crisis, by Howard C. Snider Jr., M.D., Fountain Press, P.O. Box 11624, Montgomery, Ala., 1989, 292 pages, \$21.95.

Sometimes our medical colleagues come up with smart ideas. Many of us have been sued for malpractice, spent hours in the witness chair and days making depositions, even sat at the defendant's table for a week, but who has had the intelligence and mental tenacity to get the trial transcript and write an interesting and rewarding narrative of the whole sordid mess? Howard Snider, M.D., a surgeon from Montgomery, Ala., has done just that

This autobiographical book covers 1983 to 1985, during the time the patient was treated and the author was in court as the defendant in a malpractice suit. The reader learns that Dr. Snider was second in his class at medical school and a top-notch resident in surgery. From his book, we learn that he is a perfectionist who aimed for the top.

The case was as follows: In 1983, a young woman developed locally invasive carcinoma of the bowel and had explorative surgery performed by Dr. Snider's senior partner, with Dr. Snider assisting. The patient apparently was cured of the cancer but had one ureter transected and a stormy postoperative course. Eventually, required amputation of her leg, after having thrombophlebitis. The patient and her lawyer alleged that infection resulted from the cut ureter, resulting in the amputation.

Numerous self-revealing details from the author are interspersed throughout the book. These vignettes of his life reveal a person of high attainments and ideals who possibly is flawed with egotism.

He attacks the entire jury system as being anachronistic in malpractice cases. I was impressed by his need for self-justification and his morbid sense of hurt that society could be so cruel and unappreciative of his efforts and gifts to medicine. However, he seems to be a devout surgeon, regardless of what inspires him.

This book is worthwhile reading as an expose of the malpractice legal debacle in our country and as a case study of Dr. Snider. He is an interesting physician, and I commend his energy and diligence.

The outcome of the case is left for the reader to discover. The courtroom verdict hangs by a thin thread. It is frightening but a fact of life to those practicing medicine today.

Correspondence: Rodney A. Mannion, M.D., Fox Village Medical Building, LaPorte, IN 46350.

### about the artist

Dave Tipton, whose work appears on this month's cover, has been painting since 1984. A southside Indianapolis resident, Tipton is affiliated with the Southside Art League in Greenwood.

The cover art, a portion of the watercolor titled "Winter Solitude," illustrates a house in Jennings County where his relatives once lived. In the studio at his home, Tipton paints from pho-

tographs he takes while traveling through the state on business or elsewhere in the country on vacation. His paintings range from Indiana landscapes of barns and snow-covered fields to Maine lighthouses.

Tipton teaches watercolor classes at the Southside Art League, where he has several paintings on display. His works also are exhibited at Watercolor Indiana at Glendale Shopping Center in Indianapolis and the

National Bank of Greenwood in downtown Greenwood. He also is a member of Hoosier Salon, Indiana Artists Club and Indiana Arts and is a Signature Member of the Watercolor Society of Indiana.

Tipton has won purchase awards at the Hoosier Salon, the Indiana Heritage Art Show and the Watercolor Society of Indiana show. He also has earned several merit awards, including one from a painting contributed to the WFYI Channel 20 auction.

## auxiliary report

Donna Dersch State AMA-ERF Chairman ISMA Auxiliary

As 1990 draws to a close, we pause and send greetings to our friends and co-workers. We also rejoice in the successful year for the AMA-ERF fund drive. Indiana auxilians contributed \$39,037.65, and Indiana physicians contributed \$64,882.05, for a total of \$103,919.70, to AMA-ERF during the 1989-90 contribution year.

Indiana was recognized at the national auxiliary convention in June for its large contribution to a

single medical school, the Indiana University School of Medicine.

The total AMA-ERF contribution from the AMA-A exceeded the \$2,000,000 mark this past year, giving all auxilians a reason to be proud. Now the challenge is to exceed that figure and continue to support the AMA-ERF drive in 1990-91.

As we search for appropriate gifts or thank you acknowledgements for our friends, whatever their profession, consider sending a contribution to the AMA-ERF fund in that person's name. Contributions may be designated to specific medical schools or cen-

ters. Throughout the year, consider an AMA-ERF gift, tax-exempt, through your county auxiliary. Working together, the ISMA and its auxiliary can make a difference in medical education and research in Indiana.

ISMA Auxiliary members extend their best wishes for a joyful holiday and a blessed New Year. Our thanks to all of you for a record-breaking year for AMA-ERF.

May each of you experience the joy of this holy season and a new year filled with health, happiness and prosperity.  $\square$ 

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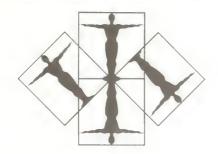
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8 — Pres: Kathleen A. Galbraith, Portland Secy: J. Frank Vormohr, Portland Annual Meeting: June 5, 1991

9 - Pres: Stephen D. Tharp, Frankfort Secy: R. Adrian Lanning, Noblesville Annual Meeting: June 12, 1991 10 - Pres: Nicholas L. Polite, Hammond

Secy: Barron M. Palmer, Hammond Annual Meeting: June 19, 1991

11 - Pres: Alan R. Crebo, Kokomo Secy: Frederick C. Poehler, La Fontaine Annual Meeting: Sept. 18, 1991

12 - Pres: Mark S. Souder, Auburn Secy: John A. Egli, Topeka Annual Meeting: Sept. 19, 1991

13 - Pres: Mark A. Ballard, LaPorte Secy: John W. Schurz, South Bend Annual Meeting: Sept. 11, 1991

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# news briefs

Methodist Hospital receives research grant from NCI

Methodist Hospital of Indiana was awarded a grant, totaling more than \$500,000 for three years, by the National Cancer Institute (NCI). Many of the latest research drugs and treatments will be available to cancer patients through Methodist and affiliated Indiana hospitals as a result of the grant.

Participating patients outside Indianapolis will receive the research treatments in their own community hospitals through a special affiliation. Among those hospitals that will be involved are Hendricks County Hospital in Danville, Howard Community Hospital in Kokomo, Putnam County Hospital in Greencastle, Tipton County Memorial Hospital in Tipton and Wabash County Hospital in Wabash.

NIH issues reports

National Institutes of Health (NIH) consensus development statements on the Treatment of Early Stage Breast Cancer and Intravenous Immunoglobin: Prevention and Treatment of Disease are now available.

The reports were prepared by panels of experts who considered scientific evidence presented at a Consensus Development Conference at the NIH. Free, single copies of the statements may be obtained by writing William H. Hall, Director of Communications, Office of Medical Applications of Research, National Institutes of Health, Building 1, Room 259, Bethesda, MD 20892.

SysteMetrics acquires publication rights
SysteMetrics/McGraw-Hill has

acquired the publication rights from the Cambridge Health Economics Group to the *Physician's Reference to Resource-Based Relative Value Scale*, by William C. Hsiao, M.D., and his associates.

The new publication will be titled Managing Reimbursement in the 90s – the Original Physician's Reference to RESOURCE-BASED RELATIVE VALUE SCALE. It will be offered on an annual subscription basis to accommodate planned updates that will cover new values as they become available.

ISBH chosen for national cancer research program

The National Cancer Institute has selected the Indiana State Board of Health for a multi-year cooperative agreement for cancer research.

The Data-Based Intervention Research Cooperative Agreement is one of eight awards given to state health departments. Twenty-two states are participating in the seven-year program. The program will identify and evaluate national and state data sources to describe and project the cancer experience of Indiana residents; develop a comprehensive cancer control plan as a result of the evaluation of the various databases; and conduct and evaluate cancer interventions in accordance with cancer plan priorities.

IPIC to remain at Methodist Methodist Hospital of Indiana w

Methodist Hospital of Indiana will continue to operate the Indiana Poison Information Center (IPIC) in Indianapolis until June 30, 1991. After competitive bidding, the Indiana State Board of Health awarded the contract to Methodist Hospital.

Indiana statutes require the state board of health to provide Hoosiers with a regional poison information center. The facility is funded by an annual appropriation from the Indiana General Assembly.

# Author seeks humorous medical stories

Don Herbert, an announcer for Los Angeles radio station KFBW, is compiling a medical humor book, *Keeping Your Doctor in Stitches*. It will contain true incidents that take place in a physician's practice, office or hospital.

The book will be published after Herbert collects about 1,000 tales. To submit a funny story, write Don Herbert, 12327 Erwin St., North Hollywood, CA 91606 or call (818) 980-0458.

Provider, payer, utilization review groups develop voluntary guidelines

The American Hospital Association, the American Managed Care and Review Association, the American Medical Association, the Blue Cross and Blue Shield Association and the Health Insurance Association of America have jointly developed voluntary guidelines for the conduct of private utilization review programs.

These guidelines are designed to promote consistency and uniformity of utilization review procedures and facilitate the efficiency and effectiveness of the review process. These five organizations will urge their members to use "Guidelines for Concurrent Review and General Administrative Procedures" as the basis for discussion and implementation of utilization review programs.

# people

Dr. Steven K. Ahlfeld of Indianapolis presented a paper at the American Orthopaedic Society for Sports Medicine meeting in New Orleans; his paper on "Osteoid Osteoma of the Femoral Neck in the Young Athlete" was presented as part of the Sports Medicine Society specialty day program.

Dr. James W. Strickland of the Indiana Center for Surgery and Rehabilitation of the Hand in Indianapolis was elected president of the American Society for Sur-

gery of the Hand.

Dr. Stephen W. Perkins of Indianapolis directed a panel discussion on rhinoplasty at the Biennial Symposium on Rhinoplasty in Portland, Ore. He also was a panelist on transconjunctival blepharoplasty at the American Academy of Facial Plastic and Reconstructive Surgery fall meeting in San Diego.

Dr. Randolph W. Lievertz of Indianapolis spoke on "Managing Menopausal Estrogen Needs in the 1990s" to the Department of Family Practice at Ravenswood Hospital Medical Center in Chicago. He presented grand rounds on "Clinical Pharmacology of Non-Steroidal Anti-Inflammatory Drugs" at Bloomington Hospital.

Dr. Frederick M. Kelvin, a radiologist at Methodist Hospital in Indianapolis, is a co-author of Gastrointestinal Disease (Fourth Series): Test and Syllabus, published by the American College of Radi-

ology

Dr. Ronald T. Rolley, a general surgeon/vascular surgeon and a specialist in the treatment of spider and varicose veins, has opened an office at the Heather Glen Medical Building in Indianapolis.

#### Physician Recognition Award recipients

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Adams, Robert H., Kokomo Andrews, Frederick B., Columbus Arshad, Mohammad, Merrillville Atkins, Steven D., Greenwood Barton, Reginald R., Gary Brill, Joseph B., Jeffersonville Brillhart, James R., Indianapolis Burg, Howard E., Evansville Fitzgerald, Gary A., Terre Haute Galante, Albert, Munster Giese, William L., South Bend Hickman, Donald M., Fort Wayne Hubert, Bruce C., Highland Lehmann, Juergen J., Bluffton Matt, Bruce H., Indianapolis Pearson, Huey L., Fort Wayne Schauwecker, Donald S., Carmel Smith, Anthony A., Kokomo South, Dale R. Jr., Elkhart Stanford, John R., Fort Wayne Stocker, Patrick J., Terre Haute Terpstra, William G., Noblesville

**Dr. Ian S. Templeton**, a general surgeon, has retired after practicing for 30 years in Seymour and will spend the winters in St. Petersburg, Fla.

Dr. Raymond K. Kincaid has retired after 36 years as a general

practitioner in Tipton.

Dr. Andrew D. Dick has been named medical director of Stone Manor Convalescent Center in Indianapolis.

Dr. G. Walter Erickson, a South Bend pediatrician, was selected Doctor of the Year by the St. Joseph County Chapter of Medical Assistants.

**Dr. Prakash N. Joshi**, Marion, and **Dr. James S. Dunnick**, Lafayette, were elected to fellowship in the American College of

Cardiology.

Dr. Jerard G. Ruff of Bloomington won the Community Service Council's August award for volunteer work at local agencies; he has worked for United Way, Big Brothers/Big Sisters and the YMCA and founded two of Bloomington's largest races, the Bloomington Break-Away and the Oliver Winery 10-K Run.

**Dr. Elmer E. Peters** has retired after 40 years as a Brookville

family practitioner.

Dr. Eugene G. Roach, executive/medical director of the Anderson Center of St. John's, spoke at a symposium at the 15th International Cancer Congress in Hamburg, Germany; he discussed the American approach during a program on "Unproven Methods of Cancer Therapy."

**Dr. Robert L. Larew** of Lafayette has been certified by the American Board of Ophthalmol-

ogy

**Dr. Richard R. Eggers** has retired after 36 years as a Crawfordsville family practitioner.

Dr. J. Michael Harshman, son of the late Dr. James A. Harshman, a former ISMA president, is practicing urological surgery in Kokomo. □

# people

New ISMA members
David P. Almdale, M.D., Fort
Wayne, orthopaedic surgery.
Alton J. Ball, M.D., Fort
Wayne, family practice.

**Dorothy C. Boersma**, M.D., Carthage, pediatrics.

Stephen E. Brown, M.D., Fort Wayne, cardiovascular diseases. Diane D. Daly, M.D., Fort

Wayne, diagnostic radiology.

Jay D. Fawver, M.D., Fort

**Jay D. Fawver**, M.D., Fort Wayne, psychiatry.

Michael J. Fenelon, M.D., North Vernon, radiology.

Roy L. Goode, M.D., Columbus, family practice.

Alane Haney, M.D., Fort Wayne, obstetrics and gynecology.

Peter C. Hanley, M.D., Fort Wayne, cardiovascular diseases. Nancy M. Hockley, M.D., Fort Wayne, urological surgery.

Vernon H. Humbert, M.D.,

Evansville, cardiovascular diseases.

**Monte L. Jones**, M.D., Terre Haute, family practice.

Soren R. Kraemer, M.D., Fort Wayne, colon and rectal surgery. Steven P. Kuric, M.D., Evans-

ville, neurological surgery.

Steven W. Orlow, M.D., Fort Wayne, cardiovascular diseases. David K. Powell, M.D., Fort

Wayne, diagnostic radiology.

Mahipal Ravipati, M.D.,

Evansville, allergy and immunology.

Lawrence J. Richter, M.D., Danville, neurology.

Thomas E. Sarosi, M.D., Fort Wayne, radiology.

Bradley L. Schantz, M.D., Fort Wayne, anesthesiology. Jean L. Schantz, M.D., Fort Wayne, anesthesiology.

Gerald E. Snyder Jr., M.D.,

Fort Wayne, anesthesiology.

Greg S. Steinbock, M.D., Jeffersonville, urological surgery. Douglas J. Trigg, M.D., Fort

Wayne, internal medicine.

Bennett H. Williams, M.D., Jeffersonville, internal medicine.

Christopher C.S. Zee-Cheng, M.D., Fort Wayne, internal medicine.

#### Residents

**Douglas A. Bies**, M.D., Evansville, psychiatry.

Stephen J. Koewler, M.D., Evansville, internal medicine. Gregory S. McCord, M.D.,

Evansville, gastroenterology.

Patricia J. Mercer, M.D.,

Evansville, internal medicine.

Ellen M. Ryan, M.D., Indianapolis, psychiatry.

#### November CME quiz answers

The following letters are the answers to the CME quiz that appeared in the November 1990 issue: "Computerized visual fields."

- 1. c 6. c
- 2. c 7. b.
- 3. a 8. b 4. b. 9. b
- 5. a. 10. a.



MERIDIAN FACIAL PLASTIC SURGERY CENTER Stephen W. Perkins, M.D., F.A.C.S.

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# obituaries

A. Earl Applegate, M.D.

Dr. Applegate, 73, a retired general practitioner and surgeon, died Sept. 14 at Clinton County Hospital in Frankfort.

He was a 1942 graduate of the Indiana University School of Medicine and was named a Sagamore of the Wabash by Gov. Matthew Welsh in 1963.

Dr. Applegate was an inventor and held several patents, including one for a baseball pitching machine used by Indiana high schools. He was the doctor for the Frankfort High School athletic department for 36 years and an Federal Aviation Administration flight surgeon.

Harry O. Bhagwandin Sr., M.D. Dr. Bhagwandin, 58, of Indianapolis died Oct. 28.

He was a 1963 graduate of the Indiana University School of Medicine and a member of the American Academy of Family Physicians.

Dr. Bhagwandin practiced medicine in Indianapolis for 27 years.

George R. Bloom, M.D.

Dr. Bloom, 72, a retired Elkhart family practitioner, died Sept. 12 at St. Mary's Hospital in Tucson, Ariz.

He was a 1942 graduate of the Indiana University School of Medicine and a Navy veteran of World War II. He also served as a volunteer physician at civilian hospitals in South Vietnam in 1967.

Dr. Bloom, who retired in 1986, was accepted to the first certified group of fellows of the American Academy of Family Practice.

Walter A. Compton, M.D.

Dr. Compton, 79, former president and chief executive officer of Miles Inc., died Oct. 11 at his home in Elkhart.

He was a 1937 graduate of Harvard Medical School and served with the Army Medical Corps during World War II. His research in nutrition led to One-A-Day vitamins in 1940. Miles Inc. subsequently introduced Chocks, the first chewable children's vitamin in 1960. Flintstones chewable vitamins and the Bugs Bunny vitamin line followed.

Dr. Compton retired in 1981.

Harry E. Klepinger, M.D.

Dr. Klepinger, 89, of Lafayette died Sept. 7 at St. Elizabeth Hospital Medical Center in Lafayette.

He was a 1927 graduate of the Indiana University School of Medicine and served in the Indiana National Guard from 1925 to 1940. He was a past president of St. Elizabeth and Lafayette Home hospitals' medical staffs and the Tippecanoe County Medical Society.

Dr. Klepinger developed the Indiana Board of General Practice in 1944 and was its first president. He also was a charter member of the American Academy of Family Physicians. Active in the mental health field, he was the second president of the Tippecanoe County Mental Health Association.

#### Glen McClure, M.D.

Dr. McClure, 63, a retired Sullivan surgeon, died Sept. 14 at Methodist Hospital in Indianapolis.

She was a 1950 graduate of the Indiana University School of Medicine and former director of emergency services at Mary Sherman Hospital.

Dr. McClure was the first woman in Indiana who was board-certified in surgery. She was a fellow of the International College of Surgeons and the American Association of Abdominal Surgery and a diplomate of the American Board of Abdominal Surgery.

Lawrence Shinabery, M.D.

Dr. Shinabery, 90, a retired general practitioner, died Sept. 16 in Health Care of Westminster Village in Muncie.

He was a 1924 graduate of Jefferson Medical College in Philadelphia, Pa. He founded A-1 Production in Kendallville in 1941 and was a past president of the American Physicians and Surgeons Association.

Dr. Shinabery practiced medicine 43 years in Fort Wayne before retiring in 1967.

Lowell R. Stephens, M.D.

Dr. Stephens, 85, a specialist in allergies and pediatrics, died Sept. 8 at Covington Manor Health Center.

He was a 1930 graduate of the Indiana University School of Medicine and an Army Medical Corps veteran of World War II.

Dr. Stephens practiced medicine 45 years in Covington and retired in 1982.

# Index to Indiana Medicine volume 83

January through December 1990

MONTH	<b>PAGES</b>
January	1-94
February	95-164
March	165-242
April	243-314
May	315-382
June	
July	457-546
August	547-622
September	623-696
October	697-798
November	799-880
December	881-954

#### **SCIENTIFIC CONTRIBUTIONS:**

#### A

Acute anterior cruciate ligament injury
(Shelbourne, Mollabashy, De Carlo)896
Adolescent pregnancy: Psychosocial issues
(Patch)30
Adjuvant radiation therapy in endometrial carcinoma
(Garrett, Pugh, Ross, Rate)560
R

#### B

Back pain: The primrose path – a case report
(Dugan, Dugan, Dugan Jr.)114
Balloon valvuloplasty
(Bourdillon, Dillon, Brown, Feigenbaum)
Breast-feeding failure
(Becker, Conard)

#### C

Cardiac myxoma: The Indiana Heart Institute experience (Nasser T, Nasser W, Slack,
Noble, Waller, Isch, Pinto)644
Cardiac rupture following acute myocardial infarction:
A case with successful surgical treatment
(Nasser T, Nasser W, Slack, Pinkerton,
Smith, Adlam, Pinto, Bergfelder)414
Clinical experience with ciprofloxacin:
Analysis of a multicenter study
(Karimi)
Comparison of hip fracture mortality:
1946 to 1955 vs. 1982 to 1986
(Kernek, Baele, Throop, Pierce)332
Computerized visual fields

Conduct disorder: A review
(Laite, Galvin)172
Confirmation of metastatic prostatic carcinoma
to lung by immunohistochemistry
(Dick, Carpenter, Wolf)28
D
The diagnosis and treatment of genital
human papillomavirus lesions
(Brillhart)652
E
Epidermoid cyst of the spleen:
A clinicopathologic correlation
(Huang, Wylie, Thomas, Cebedo)326
Eosinophilia myalgia syndrome: Case report
(Abels, Slama)
Evaluation and management of goiter
in childhood and adolescence
(Pescovitz)10
Evaluation of swallowing disorders:
The modified barium swallow
(Gustafson-Yoshida, Maglinte, Hamaker, Kelvin)892
(Gustatson Tostuda, Magnitte, Hamaker, Netvin)
F
Familial dilated cardiomyopathy: A case report
(Klemme)

(McCarthy, Ball, Hsueh) ......825

(Creighton, Idler, Strickland) .......260

H

Finally ... the hepatitis C virus

Trigger finger and thumb

Hand Clinic:

de Quervain's stenosing tenosynovitis (Strickland, Idler, Creighton)	P
Dupuytren's disease	Peripheral cardiopulmonary support
(Strickland, Idler, Creighton)408	during high-risk angioplasty
Tennis elbow	(Broderick, Bourdillon, Dalsing, Faris, Dillon)716
(Creighton, Idler, Strickland)	Port wine stain: A new therapeutic approach
Flexor carpi radialis tunnel syndrome	to an old birth defect
(Idler, Strickland, Creighton)570	(Hurwitz, McCallister)
Intersection syndrome	Pregnancy, abruptio placentae and cocaine
(Idler, Strickland, Creighton)658	(Norman, Hansell, Evans)634
Triscaphe arthritis	Problem solving
(Creighton, Strickland, Idler)	(McGrath)264
Osteoarthritis of the carpometacarpal joint of the thumb	Processing surgically removed lymph nodes
(Strickland, Idler, Creighton)828	(McCloskey, Moriarty)
Osteoarthritis of the proximal interphalangeal joint	(Wiccioskey, Worldity)
(Strickland, Idler, Creighton)908	D
(Strickland, Idler, Creighton)900	R
Human nulmonary direfilariacie	Radiology Clinic:
Human pulmonary dirofilariasis (Bloch, Glynn, Hinshaw)	Wrist mass in an 18-year-old
(Diocii, Giyitti, Tilisitaw)24	(Choi, Vanbastelaer)112
_	One-month-old infant with vomiting
	(Below)
Tatura and a cutoria conservation for the superfermina	Unilateral deformity of the hand
latrogenic arteriovenous fistula of the profunda	(Wethington, Pierce)406
femoris artery/vein: A case report	Mediastinal mass in a patient with lymphoma
(Pejic)	(Walser)
Intercostal pulmonary/diaphragmatic hernia	Abnormal catheter position after central
(McCrea)818	venous line placement
_	(Quets)
L	35-year-old woman with a lung mass
_	(Kurlander)904
Lasers in dermatology	(Kuriander)
(Hanke)	The relationship between physical aggression
	The relationship between physical aggression and chemistry
M	(Strefling)122
	Risk factors for late-onset necrotizing enterocolitis
Making a rash diagnosis:	(Vinocur, Stine)
Amoxicillin therapy in infectious mononucleosis (Pauszek)	(Vintocut, Sinte)
The management and treatment of an abnormal Pap smear	
(Hansell, Rogers)468	S
Maternal mortality in Indiana:	Sentinel symptoms and signs of intracranial aneurysms
A report of maternal deaths in 1988	(Shapiro)20
(Ragan)730	Serum creatine kinase–BB and small cell anaplastic
Medical indications and contraindications for eye donation	carcinoma of the lung: Two case reports
(Deitch Jr., Wilson, Foster)826	(Webb, Dick, Blick, Sinn)564
Myocardial contusion	The signal averaged electrocardiogram: A practical primer
(Micon, Rodman)106	(Slack, Branyas, Weiler)482
	Silicone breast implants – Is there cause for concern?
N	(Van Natta, Thurston, Moore)184
_ ,	Smoking prevalence in Indiana: Implications for physicians
The neurological sequelae of mononucleosis	(Lindsay, Joseph)186
(Fisher, Foley, Lunsford)190	
New trends in the surgical treatment	T
of non-small cell lung cancer	
(Wright, Kesler)192	Thrombolytic therapy in acute coronary thrombosis
Nonfunctioning paraganglioma of the liver,	(Ramalanjaona, Mathew)410
gallbladder and common bile duct	Transient ischemic attack:
(Ferrell, Ng, Rouch, Chua)822	The presenting manifestation of transient asystole
	(Pauszek)722

U
Use of pressure support ventilation
(Datzman)
FEATURES:
Δ
Abstract of "Marmon in Modical Consists: Consisting
Abstract of "Women in Medical Specialty Societies:  An Undate" 202
An Update"
C
C
Cruzan: Its effect on Indiana
Indiana's living will after Cruzan (Nocon)832 The dignity of death: Some practical considerations
for physicians (Morone)836
Beyond Cruzan: Making life support decisions
(Anderson, Byrne, Robinson)838
D
Defense of medical malpractice claims
takes perseverance and patience
Digest of health and medical laws
(Sims)
F
Forced retirement and the ADEA
(Bowers)
G
Get the facts about malpractice insurance
н
HCFA administrator answers questions
Health issues adorn 'Christmas tree' bills
(Abrams)
How accessible are your medical records?  (Taylor, Killila)
(Taylor, Killila)
I
ICHIA offers insurance to high-risk patients
(Geary)
Improving communication can prevent malpractice272 Indiana Medicine wins first prize342
Indiana physicians prefer occurrence coverage348
International medical training
(Heimburger)

IT	Bergfelder, Paul414
O	Blick, Kenneth E564
Undocumented phone calls: A liability issue (Killila)768	Bloch, Ted24
Update on legal processes for adoption in Indiana	Bourdillon, Patrick D.V
(Engle, Greenwood, Miroff)578	Branyas, Nancy A482
	Brillhart, James R
W	Broderick, Thomas M
VV	Brown, Stephen708
Women in medicine: A balancing act (White)198	
DEPARTMENTS:	Cantor, Louis B810
About the artist921	Carpenter, Pramod K28
Auxiliary report	Cebedo, Jaime
771, 847, 922	Choi, Ryo Eun
Book reviews	Chua, Gonzalo T822
CME answers	Conard, Julie A648
CME awards90, 160, 236, 308, 378, 453, 542, 618,	Creighton, James J. Jr 260, 340, 408, 476, 570, 658, 726, 828,
690, 794, 874, 944	908
CME calendar	
630, 706, 808, 888	D
CME quiz	D
Correction	Dalsing, Michael716
Drug names 15, 116, 194, 271, 335, 412, 491, 577, 647, 721,	Datzman, Marylin A254
820, 901	De Carlo, Mark
Editorial	Deitch Jr., Robert D826
From the museum 246, 318, 386, 460, 550, 626, 700, 802, 884	Dick, Timothy T
Guest editorial	Dillon, James C
ISMA leadership84, 157, 233, 305, 503, 611, 942	Dugan, Deborah A
Letter to the editor	Dugan, Laura O
Membership report209	Dugan, William M. Jr
Message from the president	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
News briefs	T
688, 792, 877, 943	E
Obituaries 89, 159, 235, 307, 377, 451, 541, 615, 689, 872, 946	Evans, Michael A634
People	Dvario, Michael II.
690, 794, 874, 944	T
Recent court rulings	F
Statement of ownership, management and circulation817	Faris, James V
Stethoscope	Feigenbaum, Harvey
625, 699, 801, 883	Ferrell, Kelly D. 822
What's new	Fisher, Michael D
THE	Foley, Patrick 190
	Foster, Jana
CCIENTIFIC ALITHODO	2 00021, juitu
SCIENTIFIC AUTHORS:	
	G
A	Galvin, Matthew R
Abole Linde E	Garrett, Peter560
Adlers James H	Glynn, Thomas24
Adlam, James H414	Gustafson-Yoshida, Nancy
D	
В	Н
Baele, Joseph R	
Ball, Margaret J825	Hamaker, Ronald C
Becker, Patricia G648	Hanke, C. William
Below, Mary E	Hansell, Richard S
,	

Hinshaw, Michael24	Pescovitz, Ora H
Hsueh, Yenshen825	Pierce, Raymond O. Jr
Huang, Tsau-yuen	Pinkerton, Cass A
Hurwitz, Robert M	Pinto, Rodger P
	Pugh, Newell560
Ī	
1	
Idler, Richard S 260, 340, 408, 476, 570, 658, 726, 828, 908	Q
Isch, John H	Quets, Jerome P724
Ī	R
January Comit	
Joseph, Sunita	Ragan, William D
	Ramalanjaona, Georges R
K	Rate, William
	Rodman, George H. Jr
Karimi, Kambiz 266	Rogers, Robert E
Kelvin, Frederick M. 892	Ross, David
Kernek, Clyde B. 332	Rouch, Dale822
Kesler, Kenneth A	
Klemme, John W. 902	S
Kurlander, David	
	Shapiro, Scott A20
I.	Shelbourne, K. Donald
This City To	Sinn, Charles M564
Laite, Gina E	Slack, John D
Lindsay, Gordon B	Slama, Thomas G
Lunsford, Thomas	Smith, Michael L414
	Stine, Mary Jo478
M	Strefling, John L
	Strickland, James W
Maglinte, Dean D.T. 892	658, 726, 828, 908
Mathew, John C. 410	
McCallister, Robert E	Т
McCarthy, Leo J	1
McCloskey, Donald W	Thomas, Gerald326
McCrea, Michael S	Throop, Frank B
McGrath, Roland B. 264	Thurston, J. Bradley184
Micon, Larry T	
Mollabashy, Alla	V
Moore, Thomas S	· ·
Moriarty, Ann T	Vanbastelaer, Frederic E
	Van Natta, Bruce W
N	Vinocur, Patricia
Nasser, Tony K	
Nasser, William K	W
	VV
Ng, Anastacio 822	Waller, Bruce F644
Noble, R. Joe	Walser, Eric M568
rvoman, bent	Webb, Thomas A564
	Weiler, Barbara C482
P	Wethington, Perry E406
	Wilson, Fred M
Patch, Lana K	Wolf, Carlene E
Pauszek, Michael E	Wright, Cameron D
Pejic, Rade	Wylie, Robert R326
	-

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## classifieds

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#### Advertising index

Central Pharmaceuticals	
The Ear Institute of Indiana	906
Indianapolis Cardiology Associates	907
Lilly, Eli & Co.	890
Lincoln National Life	891
Medical Protective	
Merck Sharp & Dohme	Covers
Meridian Facial Plastic Surgery Center	945
Palisades Pharmaceuticals	882
PGA Championship	901
Physicians Billing Service of Indiana	
Physicians' Directory	
Physicians Insurance Co. of Indiana	
G.D. Searle and Company	885
Spectrum Emergency Care	
University Microfilms	
U.S. Air Force	
U.S. Army Reserve	889
Wabash Medical Resources	

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VASOTEC is available in 2.5-mg, 5-mg, 10-mg, and 20-mg tablet strengths

Contraindications: VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor

mis product and in patients with a history of angieceema related to previous freatment with an ACE infinition Warnings: Angiecefera. Angiecedema of the face, extremities, lips, longue, glottls, and/or larynx has been reported in patients freated with ACE infinitions, including VASOTEC in such cases. VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without freatment, although antihistamines have been useful in relieving symptoms. Angiecelma associated with laryngeal edema may be fall all Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered. (See ADVERSE REACTIONS)

Hypotension Excessive hypotension is rare in uncomplicated hypotensive patients treated with VASOTEC alone Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dissing instructions are followed, caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oligium and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics hear failure, hypotenside and/or sall depletion of any etiology. It may be advisable to eliminate the diuretic (except in patient at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, Drug Interactions and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalight in and/or diducted is increased. Similar considerations may apply to patients with scate of the patient of the patients at risk for excessive and in accessive hypotension occurs, the patient should be placed in the supposition and, in necessary, received an intervenous infusion of normal saline. A transmit hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized filsymptomatic hypotension occurs. diuretic may be necessary

duretic may be necessary

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered. Precautions: General Impaired Renal Function. As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with Act whose renal failure and/or death.

In clinical studies in phyretensive nations with unitateral or hilateral renal artery stenoes increases in blood use.

In clinical studies in hypertensive patients with unitateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first lew weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

#### Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION )

Hyperkalama: Elevated serum potassium (>5.7 mEg/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitan use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC (See *Drug Interactions*)

Surgery/Anesthesia In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

#### Information for Patients

Angioedema Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril Palients should be so advised and fold to report immediately any signs or symptoms suggesting angioedema (swell-ing of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescrib-

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure, patients should be advised to consult with the physician

Hyperkalemia Patients should be told not to use salt substitutes containing potassium without consulting their

Neutronenia Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia

NOTE As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

#### Drug Interactions

Hypotension Patients on Diurelic Therapy. Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalaprii. The possibility of hypotensive effects with enalaprii can be minimized by either discontinuing the diuretic or increasing the sall intake prior to initiation of treatment with enalaprii lat it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release. The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyl-dopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions

Agents Increasing Serum Polassium VASOTEC attenuates polassium loss caused by thiazide-type diuretics Polassium-sparing diuretics (e.g., spironolactone, triamferene, or amiloride), polassium supplements, or polassium-containing salt substitutes may lead to significant increases in serum polassium Therefore, if concomiant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent moniforing of serum polassium Polassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC

Lithium Lithium loxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

Pregnancy — Category C. There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapni (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapni but did not occur when these animals were supplemented with saline Enalapni was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day to the received the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not

been clearly defined, VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential ben-

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal mor

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnos in the mother has also been reported, presumably representing decreased renal function in the letus. Inlants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguina, and hyperkalema. If oliguina occurs, aftention should be directed loward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus afterious have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypertension, or the underlying prematurity

Nursing Mothers: Milk in lactating rats contains radioactivity following administration of <sup>14</sup>C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a russing mother.

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more VASOTEC has been found to be generally well folerated in controlled clinical frials involving 2987 patients.

HYPERTENSION. The most frequent clinical adverse experiences in controlled trials were headache (5.2%), dizziness (4 3%), and fatigue (3%)

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%). HEART FAILURE: The most frequent clinical adverse experiences in both controlled and uncontrolled trials were dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were fatigue (18%), headache (18%), abdommal pain (16%), asthema (16%), orthostatic hypotension (16%), verticip (16%), admap pectors (15%), hauses (13%), vomiting (13%), bronchitis (13%), dyspinea (13%), urinary tract infection (13%), is as (13%), and myocardial infarction (12%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each

Cardiovascular Cardiac arrest, myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, *Hipotension*), pulmonary embolism and infarction, pulmonary edema, rhythm disturbances, atrial fibrillation, patipitation

Digestive lleus, pancreatitis, hepatitis (hepaticellular or cholestatic jaundice), melena, anorexia, dyspepsia, constipation, glossitis, stomatitis, dry mouth

Musculoskeletal Muscle cramps

Nervous/Psychiatric Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia

Urogenital Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION) Respiratory Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection

Skin Exfoliative dermatitis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multi-forme, urticana, pruntus, alopecia, flushing, hyperhidrosis

Special Senses Blurred vision, taste alteration, anosmia, finnitus, conjunctivitis, dry eyes, tearing

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthratigas/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermatologic manifestations

dermatologic manifestations Angioedema Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be Itatal. If angioedema of the Itace, extremities, lips, longue, glottis, and/or larynx occurs, treat-ment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS). Hypotension. In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of ther-apy in 0.1% of hypertensive patients. In heart lailure patients, hypotension of syncope was a cause for discontinuation of therapy in 1.9% of patients with heart lailure. (See WARNINGS.)

Clinical Laboratory Test Findings

TIONS, Drug Interactions )

Serum Electrolytes Hyperkalemia (see PRECAUTIONS), hyponatremia

Creatinne, Blood Urea Nutrogen in controlled clinical trials, importanceman creating in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC atone Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis (See PRECAUTIONS.) In patients with heart latiture who were also receiving diuretics with or without digitalis; increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients

Hemoglobin and Hemalocnt Small decreases in hemoglobin and hemalocnt (mean decreases of approximately 0.3 g% and 1.0 vol.%, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

Other (Causal Relationship Unknown). In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD

Liver Function Tests Elevations of liver enzymes and/or serum bilirubin have occurred

Dosage and Administration: hyperension In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension (See WARNINGS) if the patients blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour (See WARNINGS and PRECAU-

Thorse, bug interactions )

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

pressure is not controlled with vASOTEC alume, a uniferturing the advector Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

Dosage Adjustment in Hyperfensive Patients with Renal Imparment. The usual dose of enalapril is recommended for patients with a creatinine clearance > 30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance > 30 mL/min (serum creatinine = 3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be thrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily

Head Failure VASOTEC is indicated as adjunctive therapy with fuuretics and digitalis. The recommended starting
dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical
supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS. Drug interactions) If possible, the dose of the diuretic should be reduced, which may
diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not
preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The
waximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in
this study were given 40 mg. the maximum recommended daily dose, and there has been much more experience with
himse-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with
were calify dosing in addition, in a placebo-controlled study which demonstrated reduced mortality in patients with
were daily dosing in addition, in a placebo-controlled study which demonstrated reduced mortality in patients with
were daily dosing in addition, in a placebo-controlled study which demonstrated reduced mortality in patients with
were cally dosing the depending upon clinical or hemodynamic response. (See WARNINGS.)

Possage dailystem of the processor of the patients and Repail Impagrament or Humpagrams. In natients with heart failure.

Heart failure (NYHA Class M), patients ward Repail Impagrament or Humpagrams. In natients with heart failure.

Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia. In patients with heart failure who have hyponatremia (serum sodium < 130 mEq/L) or with serum creatinine > 1.6 mg/di., therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, Heart Failure, WARNINGS, and PRECAUTIONS, Drug Interactions.) The dose may be increased to 2.5 mg bild, then 5 mg bild and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deferioration of renal function. The maximum daily dose is 40 mg.

For more detailed information, consult your MSD Representative or see Prescribing Information, Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19486 199861 R2(820)



### THERAPY THAT MAY BE AS SILENT AS HYPERTENSION ITSELF

wisored to generally well tolerated and not characterized by certain undestrable effects associated with pelected agents in other antihypertensive casses.

patients with a history of angioedema related to previous treatment with an ACE inhibitor. A diminished antihypertensive effect toward the end of the dosing interval can occur in some patients.

For a Brief Summary of Prescribing Information, please see the last page of this advertisement.

FOR MANY HYPERTENSIVE PATIENTS ONCE-A-DAY



**VASOTEC** 

(ENALAPRIL MALEATE MSD)



